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JOHNSON - MEMORIA CYCLOPEDIA 1846





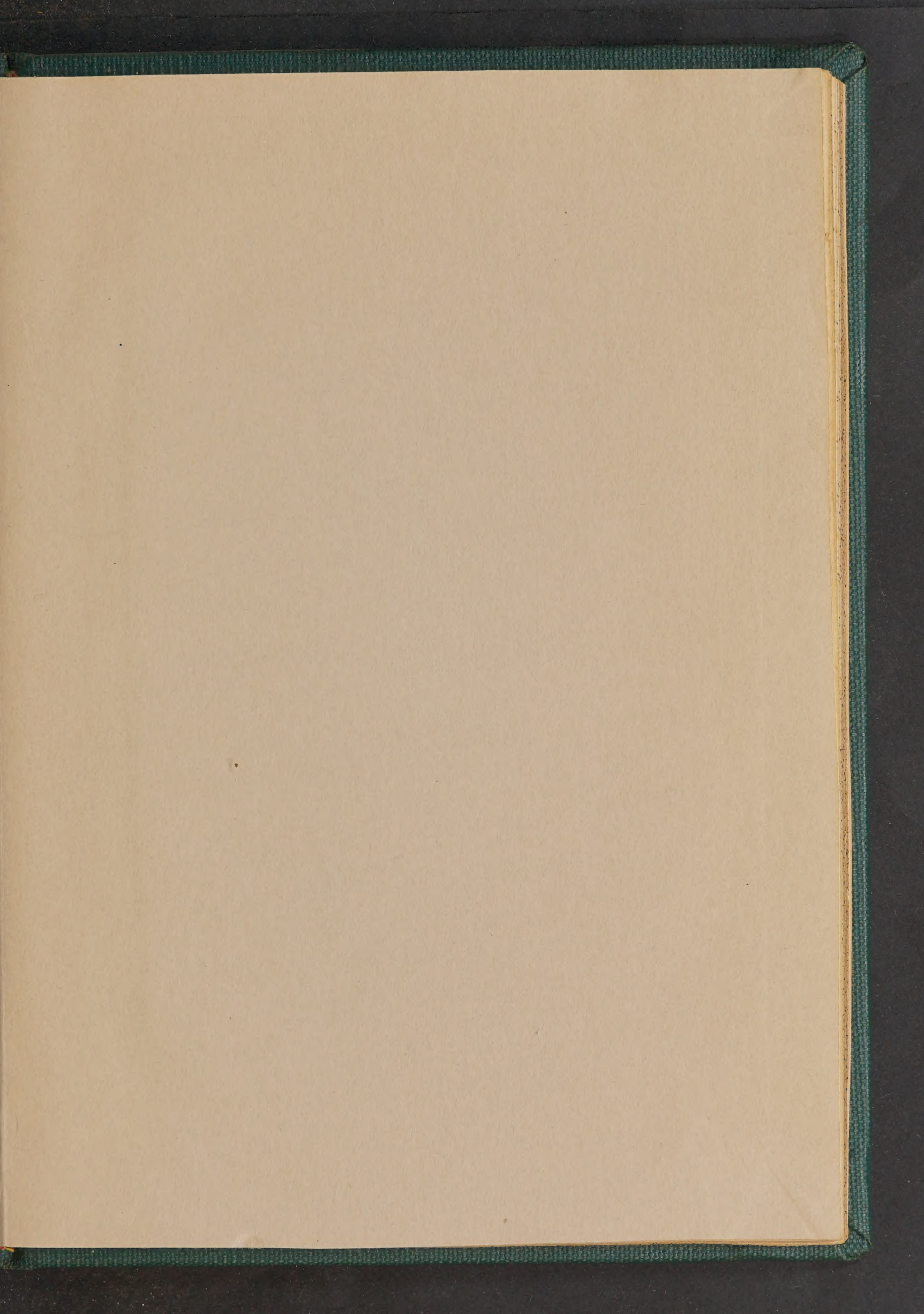






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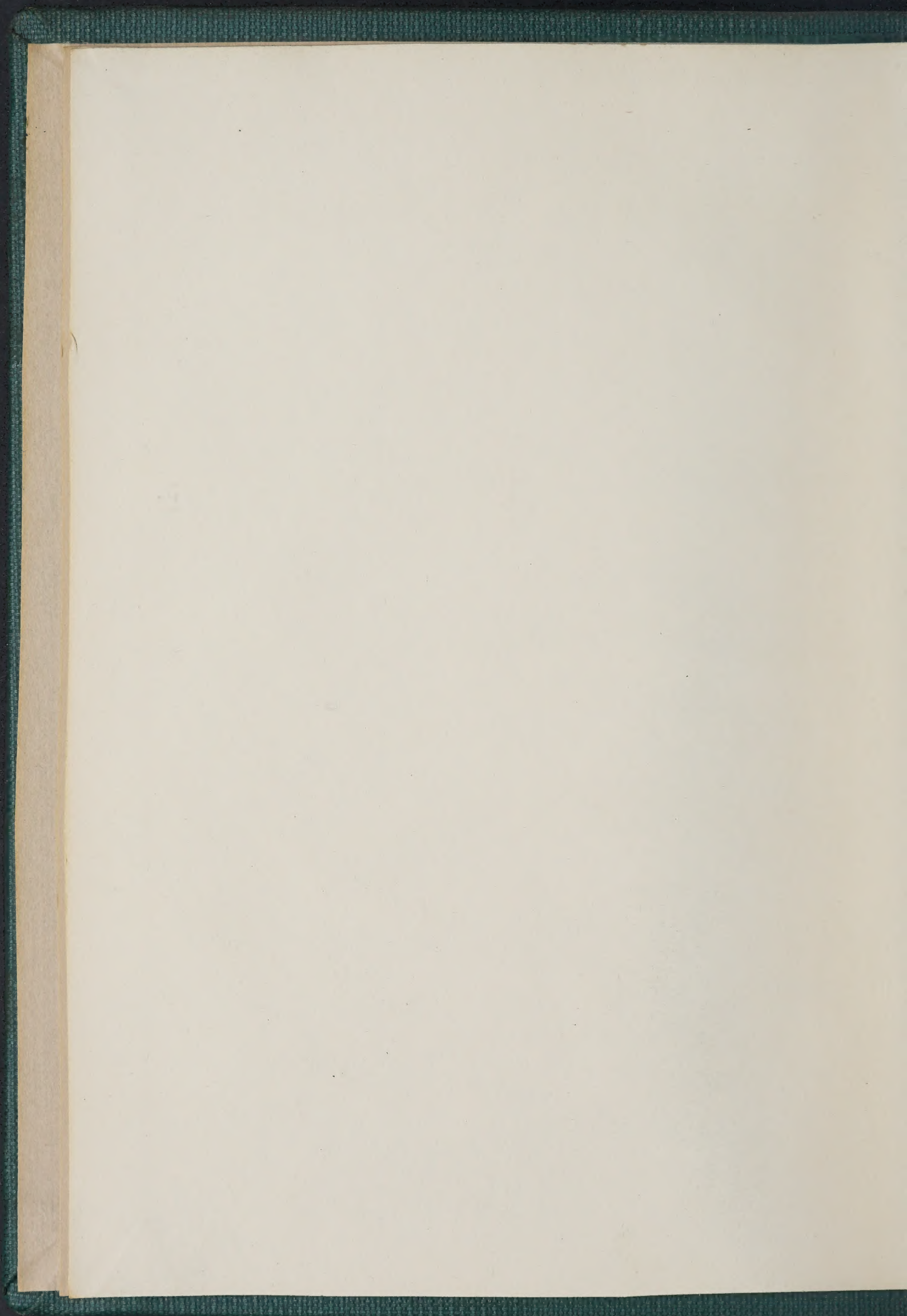














# MEMORIA CYCLOPEDIA,

OR,

## THE ART OF MEMORY,

APPLIED TO

TECHNICALITIES AND NUMBERS IN THE SCIENCES.

BASED ON THE ANALYSIS OF SOUNDS AND ARTICULATIONS.

BY LORENZO D. JOHNSON.

Memory is not wisdom ; idiots can rote volumes ;  
Yet, what is wisdom without memory ? a babe that is strangled in its birth,  
The path of the swallow in the air, the path of the dolphin in the waters,  
A cask running out, a bottomless chasm. M. F. TUPPER.

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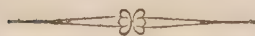
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## INTRODUCTION.



NO GREATER evidence can be adduced in favor of the hypothesis, *that the MEMORY can be made infinitely more available by attending to certain RULES*, than the *fact* that it has been a subject of public interest, and has received the particular attention of the higher order of minds in almost every age of the world.

Herodotus, the father of history, informs us that “Those Egyptians who live in the cultivated parts of the country, *are*, of all I have seen, *the most ingenious, being attentive to the improvement of the memory*, beyond all the rest of mankind.” The hieroglyphics of Egypt are the symbols or representatives to the eye of by-gone scenes, and was doubtless the earliest *system* of artificial Memory. (Mnemonics.)

Simonides is the reputed father of that system of rules which became a favorite study with both Greeks and Romans. Simonides was a Grecian Poet of considerable celebrity. He died 467 before Christ, aged 87 years.

Herodotus was born 484 years before Christ, making him 27 years old when Simonides died.

Such men as Aristotle, Plato, Cicero, Quintilian and Seneca, among the Ancients, acknowledge their indebtedness to Mnemonic *Rules*, for the feats of Memory which they performed. And in Modern times, Lenande, the French astronomer, Hume, Bacon, Locke, and Addison, and we may add Robert Hall, whose opposition was completely overcome by Feinaigle. In like manner was Dr. Priestly made an advocate of Dr. Gray's system, as the following extract from him will show:



"It is so easily learned, and may be *of so much use* in recollecting dates, and any other fact connected with figures that I should think all persons *of a liberal education*, INEXCUSABLE, who will not take the small pains that is necessary to make themselves masters of it; or who think any thing unworthy of their notice which is so useful and convenient."\*

The Germans are the only modern nation who have made the art of Memory a primary study — and for its advantages in schools, the educated Germans give ample demonstration. In Germany they have as many editions, and "improved plans," of aiding the Memory, as we have of "improved" and "simplified" grammars in America.

Should the wisdom of our own age and nation pronounce these works unphilosophical or defective, yet we think, taking into consideration all the attention that this subject has received in different ages and nations, it would be precipitant and uncandid to pronounce it useless; especially as many do, before giving it a fair examination.

Dr. Richard Gray, Rector of Hinton, Devonshire, England, published a work on artificial Memory in 1730; and so great was the demand for it, that six editions of it were soon exhausted. But had not a fragment of it been preserved to us in Whelpley's "Compend of Universal History," very few persons would have heard of it in this country.

Gray, like the merchants from time immemorial, made letters stand for figures, by which they make their private marks on goods; so that for the date of the universal deluge, Dr. Gray would write *Del*, to bring to mind the word deluge, and then finish with such letters as stood for the figures in the date. Thus, according to his system, *DEL-Kiod* gave 2348. This made no *word*, which represents to the mind an *IDEA*.

The letters when put together made imaginary words which, easy as Dr. Priestly said it was to master it, had to be worn into the mind by numerous repetitions before they could be retained. It was like the word which Dr. Watts made from the initial letters, indicating the several colors of the rainbow; for violet, indigo, blue, green, yellow, orange, red, thus, *Vibgyor*. The word means nothing, and is therefore of difficult recollection. This no doubt is the reason why Dr. Gray's system fell into disuse.

\* Edinburgh Encyclopaedia.



But let the consonants, or articulations only, stand for figures, and forming only the frame-work of words, the vowel sounds can be brought in to make a word which shall have a *meaning*, or which is the representation of an idea, and then the word is retained with comparative ease, in consequence of the *idea* it conveys to the mind.

Let us take, for example, the call of Abraham ; if we wish to remember the date of this event ; in figures it stands thus, 1921 B. C. It furnishes, according to the *Key* in this work, the following letters, D p n d. These being consonants only, the vowels can be introduced and make the word *DEPEND*. This word being made the member of a sentence, it will read thus : *On the call of Abraham much was made to Depend*.

It is by establishing a relation between the event, and the indicating, or date words, that saves them from an isolated position, and makes them the natural member of a sentence. This enables us to remember the date words with no more labor of mind or memory than to remember the event ; for if the relation be well established, the event becomes a faithful prompter, giving the memory all the momentum it needs, to send it, as on an inclined plane, from the Event to the *Date* word.

The offering up of Isaac in sacrifice is an event ; the date being 1871 B. C., furnishes the indicating words, *Dove to God*. Now establish a relation between the event and the date words, and it will take but one effort of the mind to hold them both, thus : The offering up of Isaac in sacrifice was offering more than a turtle *Dove to God*.

Overlooked by Dr. Gray, this discovery was left for the Germans. M. Gregor Von Feinagle, from Baden, first introduced it into France and England about the year 1812 ; since which time other improvements have been made on Feinagle's system, especially by Amie Paris, of France, and Prof. F. F. Gouraud, who first taught in this country.

We think that the "Fundamental Basis," which Prof. Gouraud has introduced among us, is a decided improvement on Feinagle's. But Gouraud's system requires improvement. He admits *ad Libitum* rules ; and assigns the nasal articulation, *ING*, in *Sing*, *Dancing*, &c., to 7. We assign it to 2, for *the reason*, that it should make a pair with the nasal *N*, as heard in *sin*. By dropping the *s* it will be *IN*, *ING*. *N* is always suppressed before a *hard* in Gouraud's rules, so



that in the words hunger, longer, the *n* is made to have no value. We give both letters a numerical value, the *n* 2, & 7, for the same reason that we would give *n* and *κ* a value in the word *Ink*.

In all words ending with *tion*, *cion*, *sion*, (shun), in Gouraud's system, it is left "optional" with the learner to make it 62, or 6, by dropping the final *n* as his fancy shall incline him. Thus giving two pupils a chance to employ two different letters for the same figure, or for one to leave a letter without a value, and the other to give it a value. We give to shun uniformly 62.

Mr. Gouraud gives cumbrous *formulas*, to be committed by the pupil. We give none; leaving the pupil to form his own relations between facts and dates, according to his own sense of propriety. Thus giving the pupil some useful exercise for his rules in syntax and composition, which also gives exercise to thought and imagination as well as memory.

The great *time saving* advantage of *our* mode of committing the Sovereigns of England can be seen by those only who understand both systems. *They* can see in what particulars we have disincumbered and simplified the whole process.

We have received many useful hints from Phonography, as taught by *Andrews & Boyle*, of Boston. It will be seen by those who understand *that* system, that the classification of our articulations is in exact accordance with the truly philosophical classification of "*consonant sounds*," in phonography.

One great reason why the art of Memory has not been received into our public schools, and made a text book in primary instruction long ere this time, is not for want of merit, but because those who have succeeded in mastering any available rules, to aid the memory, have hitherto preferred to keep the matter in a form, which would answer no purpose as a school book. They have passed through the community, addressing the people's *Marvellousness*, and charging an exorbitant price for what they would induce the people to *expect*, rather than what would be ultimately realized, and prejudicing the public mind against the whole matter.

It is against such professors and professions that the Hon. Horace Mann, Secretary of the Massachusetts Board of Education, makes the



following thrust in his last excellent report. Alluding to aids to the Memory, which are made dependent alone on abstractions, taken out of their connection, he says: "They are like the tricks and professions of the professors of Mnemonics, who in ten lessons will teach their classes the greatest quantity of things, which, however, are like records made upon the beach, where the tide has receded, to be washed away by its reflux wave." But truthful as this hit may be with reference to the pedlars of Mnemonic rules, it falls powerless upon a system to aid the memory of technicalities, as developed in this work.

From the time that the ancients found some slight analogy to objects of sense in the forms of the constellations of the heavens, or when our Savior made the "serpent," to impersonate wisdom, or, Dr. Watts, to remember names by similarities of sound, all concur in justifying some art of memorising technicalities.

But in preparing this work for the press, it has been our object to adapt the illustrations to the comprehension of the larger pupils at least in "common schools," with the hope to see it adopted as a text book, and thereby constitute every school teacher in the land a "professor" of all the art of Memory which can be made useful to our youth; thus contributing our mite in subduing difficulties, and facilitating the more rapid acquisition of useful knowledge. There are lessons in this book in statistical geography especially, that by the aid of this system, the pupil can acquire in an hour, which, without it, he would not acquire in six hours. Take the *square miles* of the *civil divisions of the globe*, as an instance; and the acquisition of all the other lessons are aided in the same proportion. If time be valuable, this fact commends the subject to the serious attention of all who wish to make the hours which children spend in school the most available.

Should it be asked, does this subject really *improve* the memory? or is it an arrangement by which we lessen the demand for memory? The true answer is, it does both. In substituting words for numbers an immense amount of labor is saved to the memory, and consequently of *time* also. But it will be impossible for the pupil to run through the System in the several sciences to which it is applied, without giving vigorous exercise and additional strength to the power of recollection.



But it is to the SECOND PART of this work that we would chiefly refer, where the system is applicable to *Topics* in prose and poetry, as being peculiarly calculated to strengthen *all* our *retentive* faculties. The SECOND PART is based chiefly on those laws of the mind to which Phrenologists give the names of *Locality*, and *Comparison*, the last of which we shall call *Association*.

*Locality* is that law of the mind which takes cognizance of *place*, and which assigns almost every thing we hear of to some *place*. *Association* is that law of the mind, which almost involuntarily sees some *analogy*, and establishes relations between dissimilar things. While *Locality* enables us to remember places, *Association* enables us to remember what was *seen*, *said*, or *done*, in those places.

One of our own poets has beautifully alluded to the *impressiveness* of *place* in the well known lines :

“How dear to this heart are the scenes of my childhood,  
When fond *recollection* presents them to view ;  
The *orchard*, the *meadow*, the *deep-tangled wildwood*,  
And *all* the loved scenes which my infancy knew.  
The wide-spreading *pond*, and the *mill* that stood by it,  
The *bridge*, and the *rock*, where the *cataract* fell ;  
The *cot* of my father, the *dairy-house* nigh it,  
And e'en the *rude bucket* which hung in the well.”

Marden, a writer on the art of Memory, has the following on this point : “Should an old man wish to restore to his mind the boyish transactions of his youth, now fast departing from his memory, a walk on the green, where he had formerly gamboled, the blithest of the blithe, would recall to his mind the companions of his sports, with their features and characters, in a more forcible manner, and portray them upon his imagination in more lively colors than any other mode he could have recourse to.” In the *rooms*, *places*, and *SYMBOLS* of the Second Part, the learner will find a gymnasium for training his mental faculties, the unavoidable result of which will be, to give his intellect a versatile and elastic tone, and give *strength* and vividness to the impression made on the retentive faculties, which indeed forms the basis to every kind of memory, whether it be of size, weight, form, color, tune, calculation, comparison, or eventuality.



The peculiar adaptation of this system to aid in studying the Holy Scriptures, should not be overlooked. While the Bible contains the most ancient records of history, and is the only book upon which we can rely for more than two thousand years for the world's earliest history, yet it is very unfortunately arranged for study, the events and records *not being arranged in the order of their occurrence.* (The arrangement of "books," contained in the Bible were not made by divine appointment, but which does not in the least invalidate their divine authenticity.) Hence it is that the historical parts of the Bible, exist in the minds of so many who deservedly reverence the Scriptures, as a jumble of historical materials in a chaotic mass. But with a very little attention to the rules of this system, the student of theology can make a "digest" of all the important events contained in the Bible, and have the date of every event, with relative order, transferred to his mind, which will enable him "to see all things clearly." In conclusion, we will give the remarks on this point, of T. Walworth, whose labors have blessed many a New England Sabbath School:

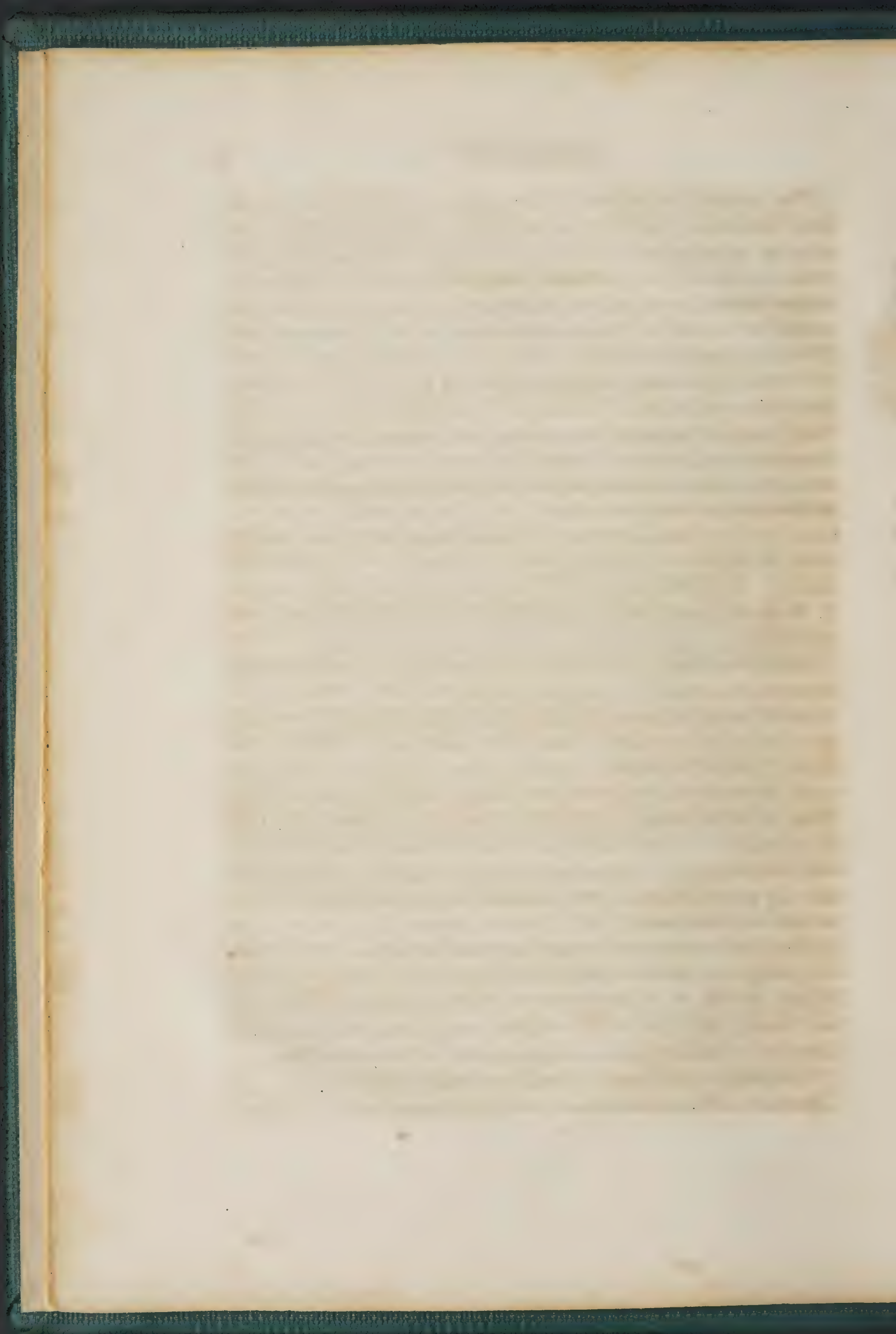
"Scripture history is Scripture itself, teaching the knowledge and enforcing the practice of its own divine precepts by examples. It therefore forms the best introduction to scripture morality and religion; and this, no doubt, is one of the purposes for which it was given. One of the inspired penmen of the sacred volume, after adverting to the various parts of the history which it contains, says: 'Now all these things happened unto them for examples; and they are written for our admonition, on whom the ends of the world are come.'—1 Cor. x. 11. This passage alone, if rightly considered, will show the use of scripture history, establish its importance, and secure its place in education; I shall therefore dismiss this topic, with the assertion, that whoever can attentively read the chapter from which the passage is quoted; or the 77th, 78th, 105th, 106th, and 107th Psalms, and not be deeply impressed with the importance of scripture history, particularly with reference to education, must have very contracted views of religion, and the object of religious adoration.

"Geography and Chronology are the eyes of History."

Rochester, Mass., 1846.

L. D. J.







## PART FIRST.

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### NUMERICAL KEY.

#### GIVING TO ARTICULATIONS A NUMERICAL VALUE.

1. The *vowels* and *consonants* of the Alphabet are divided into SOUNDS and ARTICULATIONS.

2. The pure Sounds are those which are uttered by the unobstructed breath, as it proceeds *vocalized* from the lungs, and are therefore called vowels. Such are A, E, I, O, U.

3. W and Y are added to the pure sounds, because they are U and I repeated. H is also added to the sounds, because it is a mere *breathing*, and has its origin in the lungs, with the sounds, which the learner will see, if he will speak the words *house* or *home*, first leaving off the *h* and then putting it on, and speak it again.

4. These eight letters, A, E, I, O, U, W, Y, and H, have *no numerical value*; excepting when H forms part of an articulation, as heard in *this*, *shop*, *chess*.

5. *Articulations*, in some cases, embrace more than single consonants, and are represented by Th, as heard in *thigh*, *thy*, and *theme*, *them*, also by Ch, as heard in *cheese*, *sh*, in *sheep*, and Zh, as heard in *measure*, *Azure*.

6. The following classification of the Articulations are made by a uniform termination of *e*. F is spoken as heard in *fear*, M as in *mete*, S as in *sea*, K as in *key*.

#### 7. CLASSIFICATION AND NUMERICAL VALUE OF THE ARTICULATIONS.

1 = Te, De, The — as heard in *theme*, *them*, *thigh*, *thy*, *tie*, *die*.

2 = Ne, Ng, or in, ing — as heard in *sin*, *sing*, *near*.

3 = Me — *mete*, *mite*, *mote*, *mate*.

4 = Re — *rear*, *roar*.

5 = Le — *letter*, *later*, *light*, *lat*, *lilly*.

6 = Che, Je, She, Zhe — *cheese*, *gem*, *sheep*, *azure*.

NOTE. — J and soft G are the same in articulation and value.



7 = Ke, Que, Ghe — *hey, king, queen, geese, ghost, cat, cot, cut.*

NOTE. — C hard is the same in articulation with K, and has the same value.

8 = Fe, Ve — *fear, veal, pheasant, physic.*

9 = Pe, Be — *pea, bee.*

0 = Se, Ze, and soft C — *sea, zeal, ceiling, cease.*

8. In sing, sang, sung, singer, long, the G has no value ; but in hunger, longer, congress, the G is articulated, and has the value of G hard, as heard in go, egg.

9. The position of the articulating organs remain unchanged while uttering all that is assigned to each numeral, or figure, only so far as is necessary to utter those which are in pairs, first a *light*, and then a *heavy* sound. Thus, when we say P, what other letter can we speak, and not change the organs of speech? Answer, B. So with the others, as will be seen by carefully repeating them.

Some of the letters which stand for the figures will be best remembered by noticing the following analogies. Note the similarity of beginning to speak 0 (cypher) and *c* soft, and *se* ; also 0 (zero) *ze* ; figure 1 is made with one downward stroke of the pen, so is *i* in common hand writing ; two, in the Roman numerals, is made with two strokes, so is *n* ; and three strokes for three, so with *m*, and L for 5, not 50, &c.

10. C before a, o, and u, is *hard*, and articulated like K ; also Ch, in *chorus, character*, and is = 7.

11. X is equal to two articulations, as heard in axe, ox = *aks, oks*, and therefore is 70 ; or 76, as heard in luxury = *lukshury*.

12. Double letters, when pronounced by one articulation, are but one in value, as heard in egg, letter, pepper ; but when separated by a soft or a hard sound, or by a sylibic division, so as to give each letter a distinct articulation, then each letter has its numerical value ; thus, accept, 7091 ; suggest, 07601 ; book-keeper, &c.

13. Silent letters have no value, and no letter is translated into figures, unless *articulated*—dutch, 16 ; palm, 93 ; lamb, 53.

14. The apostrophic S is not translated, thus, man's duty 3601.,

15. S in the third person singular of verbs, is not translated, thus, the bird flies, the boy runs. The same rule applies to the three words, *is, was, and has*, from the verb *to be*.

16. Connecting words are not translated. Such are *a, an, the, for, of, from, between, through, up, but, &c.*

NOTE. — The learner should carefully observe the consonant sounds or articulations, in the following series of words, for the purpose of noticing that no letter is made to stand for a figure, unless it is *articulated*, and that the numerical value is attached to the articulation rather than to the letters ; thus, in the word tough, we have *te-fe*, 18 ; in physic, *fe-ze-ce*, 807 ; and in phthisic, *te-ze-ce*, 107.



## FIRST SERIES.

17. Say, see, *sigh*, 0.  
 Tie, die, thy, *thigh*, *though*, 1.  
 Nay, *know*, now, *nigh*, 2.  
 May, mow, my, 3.  
 Ray, raw, wry, 4.  
 Lay, lie, 5.  
 Cheese, Jew, shoe, Asia, 6.  
 Key, quay, go, 7.  
 Foe, vow, fee, 8.  
 Pie, bay, happy, 9.

## SECOND SERIES.

Size, 00.  
 Tight, tidy, taught, thought, 11.  
 Noon, noun, *known*, 22.  
 Mum, Maim, 33.  
 Rare, rear, roar, 44.  
 Lily, lowly, loyal, 55.  
 Judge, jujube, 66.  
 Keg, Cook, quick, 77.  
 Five, fife, fief, 88.  
 Pipe, baby, pappy, 99.

## THIRD SERIES.

18. Sing, 02 ; sex, 070 ; tax, 170 ; oxygen, 7062 ; luxury, 5764 ; example, 70395 ; suggest, 07601 ; accept, 7091 ; success, 0700 ; nation, 262 ; amplify, 3958 ; vexation, 87062 ; taxation, 17062 ; ocean, (*she-ne*), 62 ; azure, 64 ; measure, 364 ; patience, 1620 ; satiate, 062 ; ratio, 46 ; book-keeper, 97794 ; character, 74714 ; chorus, 740 ; mission, 362 ; missionary, 3624 ; pepper, 994 ; accident, 70121 ; wedge, 6 , edge, 6 , Dutch, 16 ; singer, 024 ; longer, 5274 ; sung, 02 ; hunger, 274 ; Peter's cane, 91472 ; *the* bird flies, 94185 ; man runs, 3242 ; God *is* wise, 710 ; man *was* good, 3271 ; *but* man *has* sinned, 32021 ; *from* Boston to New York, 9012247.

19. WORDS are the original signs of ideas, and serve as the *conductors* of ideas to our retentive faculties, which can be made with an *indelible* impression, while figures are arbitrary signs *of* signs, and therefore are of very difficult recollection, and furnishes the very good reason why words can be remembered so much better than figures. The *Articulations* only having a numerical value, may be compared to the *frame work*, or skeleton, and the vowels, or *Sounds*, to the covering, or ligaments. The application of the system to history, mathematical and statistical geography will be illustrated in the appropriate chapters.



## ONE THOUSAND HISTORICAL EVENTS. WITH THE DATES.

NOTE.—It will be seen that these Events are like so many mile-stones, set up in the order of their occurrence, along the stream of time, forming the frame-work of the world's history. The pupil should fill up the spaces between, by his future reading. He will find the Bible, and some good compend of Universal and Ecclesiastical History, necessary companions for this purpose.

### DIRECTIONS TO THE LEARNER.

In committing these events, the learner should fill up the blanks, so as to make the adjective and indicating words, the members of a complete sentence, which can be read with one breath, if possible; Thus making a useful exercise in short specimens of composition. If the sentence be made to read smoothly, and justified by the student's own sense of propriety, he will find it requiring no more effort of mind to retain the *indicating words*, and therefore the *date*, than to remember the event only; thus saving all the time required to wear dates, in figures, into the mind.

### EXAMPLES.

- |   |      |
|---|------|
| 1 <i>At the Creation of the World — AROSE the SIRE,</i>                               | 4004 |
| 2 <i>The birth of Cain gave to his parents more joy than — New ROSES in MAY,</i>      | 4003 |
| 3 <i>Cain killed Abel which was like a — MoDERN MOVE for CASH,</i>                    | 3876 |
| 4 <i>After the Death of Adam, the people put on a — Rich MASK of WAR,</i>             | 3074 |
| 5 <i>The translation of Enoch, a. 365, was deemed a — Long MISTAKE,</i>               | 3017 |
| 6 <i>Noah began to build the Ark, where he received the — CHief HONOR of a CHIEF,</i> | 2468 |
| 7 <i>Methuseleh died at 969 years of age, by a — CURious ENEMY, though RIFE,</i>      | 2348 |
| 8 <i>The Universal Deluge was a — Fine NAME but ROUGH,</i>                            | 2348 |

In memorising these events, the learner will see that he is to place the indicating words in the same relation to the adjective, as the symbol\* was from which the adjective was taken, so as to make the indicating words come next to the adjective, or *numerical order* word; which he will do soonest by repeating it over to himself with *fixed attention*.

### DIVISIONS OF HISTORY.

It will aid the learner as he passes through the one thousand events, to make the following classification of history:

1st. General and particular. 2d. Sacred and profane. 2d. Ancient and modern. 4th. Civil and ecclesiastical. 5th. Twenty grand divisions as contained in the following series:

\* See the Symbols in the Second Part.



## FIRST SERIES.

## FIRST GRAND DIVISION OF TIME.

## CHARACTERISTIC OF THE AGE. ANTEDELUVIAN AGE.

FROM THE CREATION TO THE DELUGE.—*Dodge a Ledge*, 1656.

- |                                 |                                 |
|---------------------------------|---------------------------------|
| 1 Creation of the World.        | AROSE the SIRE, 4004            |
| 2 Birth of Cain.                | New ROSES in MAY, 4003          |
| 3 Cain killed Abel.             | Modern MOVE for CASH, 3876      |
| 4 Death of Adam.                | Rich MASK of WAR, 3074          |
| 5 Translation of Enoch, a. 365. | Long MISTAKE, 3017              |
| 6 Noah began to build the Ark.  | CHief HONOR of a CHIEF, 2468    |
| 7 Death of Methuselah, a. 969.  | Curious ENEMY though RIFE, 2348 |
| 8 Universal Deluge.             | Fine NAME but ROUGH, 2348       |

## SECOND GRAND DIVISION OF TIME.

From the Deluge to the call of Abraham.

CONFUSION OF LANGUAGES.—*Harangue go*, 427.

- |  |                                     |
|--|-------------------------------------|
| 9 First Vineyard, planted by Noah.         | Bold NUMB RAGE, 2346                |
| 10 Noah cursed his grandson Canaan.        | DoZing NUMB RAGE, 2340              |
| 11 Tower of Babel built.                   | TiDy NEW ANARCHY, 2247              |
| 12 Nimrod founded the kingdom of Babylon.  | TiNy NOW ANTIQUE, 2217              |
| 13 Asshur built Nineveh.                   | TaMe NINNY DOG, 2217                |
| 14 Kingdom of Egypt founded.               | DaRing NEAT FIEF, 2188              |
| 15 Dynasty of the Shepherd Kings of Egypt. | TaLl UNSAVORY, 2084                 |
| 16 Birth of Abraham.                       | DaSHy DAY of a POPPY SHOW, 1996     |
| 17 Call of Abraham.                        | DeCorated — [church] — DEPEND, 1921 |

## THIRD GRAND DIVISION OF TIME.

From the call of Abraham to the departure of the Israelits from Egypt.

EGYPTIAN BONDAGE.—*Remiss*, 440.

- |   |                                 |
|---|---------------------------------|
| 18 Separation of Abraham and Lot.                     | DeFace THY HAPPINESS, 1920      |
| 19 Abraham build an altar in Canaan.                  | DeBased IDEA of HAPPINESS, 1920 |
| 20 Abram rescued Lot from the four kings.             | NiCe DAY for BEATING, 1912      |
| 21 Melchisedec blessed Abraham.                       | NoTed AID of BOTANY, 1912       |
| 22 Birth of Ishmael.                                  | KNOWn ADOPT US, 1910            |
| 23 Circumcision Instituted.                           | NaMeless TOUGH BOOK, 1897       |
| 24 Abraham entertained three Angels.                  | NaRrow TOUGH BOOK, 1897         |
| 25 Lot's wife became a pillar of Salt.                | NuLl TOUGH BOOK, 1897           |
| 26 Destruction of Sodom and Gomorrah.                 | New SHaped TOUGH BOOK, 1897     |
| 27 Birth of Isaac.                                    | NaKed DOVE on the BUSH, 1896    |
| 28 King Abimaleck took Sarah from Abraham.            | NoVel DOVE on the BUSH, 1896    |
| 29 Abraham offered his son Isaac in sacrifice.        | NoBle DOVE to GOD, 1871         |
| 30 Death of Isaac.                                    | aMaZing TOUGH LEAP, 1859        |
| 31 Marriage of Isaac and Rebecca.                     | MeT Two in the FLESH, 1856      |
| 32 Kingdom of Argus founded by Inachus.               | MeaN TOUGH LEDGE, 1850          |
| 33 Birth of Esau and Jacob.                           | MiMic TOUGH MATCH, 1836         |
| 34 Death of Abraham.                                  | MaRble DIVINITY, 1821           |
| 35 Invention of Letters by Memnon, the Egyptian.      | sMaLl DIVINE IDEA, 1821         |
| 36 Esau sold hi birthright for a mess of pottage.     | MuSHy TOUGH DISH, 1816          |
| 37 Jacob thro' deceit obtained the blessing of Isaac. | Mocking Took the CUP, 1779      |



- |   |                                 |
|---|---------------------------------|
| 38 Death of Ishmael.  | MoVing ATTACK on a WIGWAM, 1773 |
| 39 The deluge of Ogyges.  | MaPle THICK SHOWER, 1764        |
| 40 Jacob fled from the wrath of Esau.                           | RaCing DOG LEAP, 1759           |
| 41 Jacob's dream at Bethel.                                     | RuDdy THICK LOW BOY, 1759       |
| 42 Rebecca died.  | RuN TALK LOWLY, 1755            |
| 43 Jacob married Leah and Rachel.                               | RoMan *COLONY, 1752             |
| 44 Birth of Joseph.   | RaRe *CRUEL, 1745               |
| 45 Jacob returned and was reconciled to Esau.                   | ReaL DIE in the CAMP, 1739      |
| 46 Schecemites massacred by the brothers of Dinah.              | wRetCHed THICK MUSS, 1730       |
| 47 Joseph sold by his brethren.                                 | RaGged *CONVOY, 1728            |
| 48 Joseph persecuted for his chastity in the house of Potipher. | RoVing DECKED WIFE, 1718        |
| 49 Death of Isaac.  | RiPe THICK DASH, 1716           |
| 50 Joseph made prime minister of Egypt.                         | LaZy *REQUITAL, 1715            |
| 51 Joseph's brothers went down to Egypt to buy corn,            | LiTtle TRICK SACK, 1707         |
| 52 Joseph made himself known to his brethren,                   | LeNient THICK SASH, 1706        |
| 53 Jacob and all his household went down to Egypt.              | LuMinous THICK SASH, 1706       |
| 54 Jacob died in Egypt after blessing his twelve sons.          | LaRge DUTCH FOP, 1689           |
| 55 Jacob's remains transported from Egypt to Canaan.            | LoyaL DUTCH FOP, 1689           |
| 56 Joseph died.   | LaSHed-up DUTCH MILL, 1635      |
| 57 Chronology of the Arundelian marbles began.                  | LucKy TALL FINE, 1582           |
| 58 Aaron born.  | LiVely *LIQUOR, 1574            |
| 59 Pharaoh's edict to destroy male Hebrew children.             | LiBerty TALL GAIN, 1572         |
| 60 Moses born and miraculously preserved.                       | CHoSen DELEGATE, 1571           |
| 61 Cecrops settled Attica.                                      | SHoT TALL LEDGE, 1556           |
| 62 Scamander founded the kingdom of Troy.                       | SHiNing DULLER AGE, 1546        |
| 63 Moses fled to Jethro, whom he served forty years.            | GeM *Almighty, 1531             |
| 64 Deluge of Deucalion in Thessaly.                             | CHeeRless und TOILSOME, 1503    |
| 65 The council of the Amphycitions established.                 | SHaLlow *REBUKE, 1497           |
| 66 Cadmus introduced the Phenician letters into Greece.         | JudGe TURBAN, 1492              |
| 67 Miracle of the burning bush.                                 | un-SHaKen TRIBUTE, 1491         |
| 68 Moses returned to Egypt.                                     | SHiVered TRIBUTE, 1491          |

#### FOURTH GRAND DIVISION OF TIME.

From the departure of the Israelites to the Dedication of the Temple.

TROJAN WAR.—*Revoke*, 487.

- |  |                           |
|--|---------------------------|
| 69 Pharaoh and his host drowned in the Red Sea.        | CHeaP WATERY BED, 1491    |
| 70 Law from Mount Sinai.                               | CoStly ATTRIBUTE, 1491    |
| 71 Israel worshipped the Golden Calf.                  | QuieT DEAR ABODE, 1491    |
| 72 Passover instituted.                                | CuNning DEAR ABODE, 1491  |
| 73 Tabernacle set up in the wilderness.                | CoMmon DEAR PIECE, 1490   |
| 74 Nadab and Abihu struck with sudden death.           | QueeR TROOPS, 1490        |
| 75 The blasphemers stoned by order of Moses.           | CLothed HYDROPHOBIA, 1489 |
| 76 Moses sent twelve spies into the promised land.     | KitCHen DEAR FIB, 1489    |
| 77 Destruction of Karah, Dathan and Abiram.            | QuaKing ROUGH FOE, 1488   |
| 78 Dardanus founded the city of Troy.                  | CoVered TURF HOUSE, 1480  |
| 79. Erection of the brazen serpent, by order of Moses. | CaPacious DARE LEAN, 1452 |
| 80 Aaron died on Mount Hor.                            | FaCe DARE LION, 1452      |

\* The star indicates that the letter which furnishes 1 is wanting in the word. The figure 1 stands for one thousand, which is felt for the pupil's understanding to supply; which gives us some more appropriate indicating words than we could otherwise obtain.



- 81 Balaam's ass spoke and reproved his master. FooT DROLL HEAD, 1451  
 82 Moses died on Mount Nebo in sight of Canaan. FaNcy DARE LEAD, 1451  
 83 The Israelites cross Jordan under Joshua. FaMed TOWER LIGHT, 1451  
 84 Fall of Jericho under the trumpets of Joshua. FaiR TEARLESS, 1450  
 85 Achan stoned, with his wife and children, by Joshua's order. FooLish TEARLESS, 1450  
 86 The sun and moon stood still on Mount Gibeon. un-FaSHionable TEARLESS, 1450  
 87 Final conquest of Canaan under command of Joshua. ViGorous DARE RULE, 1445  
 88 The tabernacle set up on Shiloh. ViVid WATER ROAR, 1444  
 89 Death of Joshua. VaPorous ODOR *of a* WORM, 1443  
 90 Cushan, king of Mesopotamia, enslaves Israel. PaSsage STRAIGHT HOME, 1413  
 91 First Jubilee celebrated in Israel. BeauTiful DUMB BUSH, 1396  
 92 Ceres teaches the Athenians the art of Agriculture. BeNding TIME *and* FAME, 1383  
 93 Ruth followed Naomi to Bethlehem. BeMoaning SWEET MAIDEN, 1312  
 94 Institution of the Olympic games. BRight SWEET MUSIC, 1307  
 95 Deborah the prophetess ruled Israel. BLunt DOWNFAL, 1285  
 96 Ninus founded the Assyrian Empire. PatCHed STONE JUG, 1267  
 97 Argonautic expedition. BeGging HIDDEN GEM, 1263  
 98 Tyre founded. BeFitting TINY LITLY, 1255  
 99 Gideon rescued Israel from the Midianites. PaPer TINY ROLL, 1245  
 100 Abimelech slew seventy of his brethren. DeCiSively ATTAIN HOMAGE, 1236

## SECOND SERIES.

- 1 Carthage built by a colony of Tyrians. sTout DUN MUMMY, 1233  
 2 Jephthah sacrificed his daughter. New WICKED VOW GO, 1187  
 3 The destruction of Troy. Modern HOT WOOD FIRE, 1184  
 4 Birth of Samuel. Rich TIDY *and* GOOD, 1171  
 5 Samuel offered to the Lord by his mother. Long DUTY *to* JEHOVAH, 1168  
 6 Birth of Sampson. CHief WITTY DELILAH, 1155  
 7 Sampson killed one thousand Philistines with a jaw bone. CURious STOUT MATCH, 1136  
 8 Sampson carried off the gates of Gaza. Fine STOUT OWNER, 1124  
 9 Sampson's overthrow of the temple, and his death. Bol-D ATTACK, 1117  
 10 Mariner's compass used in China. DoZing STOUT IDOL, 1115  
 11 Saul was anointed first king of Israel by Samuel. TiDy DISCIPLE, 1095  
 12 Jonathan, with his armor-bearer defeated the Philistines. TiNy DOES HAVOC, 1087  
 13 David born at Bethlehem. FaMe THIS VALLEY, 1085  
 14 Samuel hewed king Agag into pieces. DaRing TASK *of a* HERO, 1074  
 15 David killed Goliath. TaLL DIZZY SHOCK, 1067  
 16 David played on his harp to drive away Saul's melancholy. DaSHy ODIous CHIME, 1063  
 17 David anointed secretly by Samuel. DeCorated DOSE *of* SHAME, 1063  
 18 David fled to escape the jealous wrath of Saul. TouGH ODD ASSOCIATE, 1061  
 19 Abimelech and eighty-five other priests killed by order of Saul. DeFaced ODD ASSOCIATE, 1061



- 20 David feigned madness to escape from king Achish. Nice *but* ODD ASSOCIATE, 1061  
 21 Death of Samuel. NoTed DOSE of CHEESE, 1060  
 22 City of Ziglag presented to David by king Achish. kNowN DocILE SHOW. 1056  
 23 Saul raised the ghost of Samuel—witch of Endor. NaMeless DISLOYAL, 1055  
 24 Thieves of Ziglag carried away the wives and treasures of David. NarRow DISLOYAL, 1055  
 25 David destroyed the thieves of Ziglag, and recovered his wives. NuLl DISLOYAL, 1055  
 26 Saul committed suicide on mount Gilboa. New-SHaped DISLOYAL, 1055  
 27 David elected king of Israel. NaKed DISLOYAL, 1055  
 28 Abner proclaimed Ishbosheth king of Israel. NoVel DISLOYAL, 1055  
 29 Abner assassinated by Joab. NoBle DESERVE, 1048  
 30 Ishbosheth murdered, and his head carried to David. AmaZing DOES RAVE, 1048  
 31 Amnon slain by his brother Absalom. MeeT DOES AMISS, 1030  
 32 David forgave Absalom the murder of his brother Amnon. Mean DESIGN GO, 1027  
 33 Absalom's rebellion against David. MiMic ODIous NAME, 1023  
 34 Absalom killed by Joab. MaRble ODIous NAME. 1023  
 35 Sheba revolted against David at the head of ten tribes. SmaLl DISUNION, 1022  
 36 Great pestilence sent upon Israel at the option of David. MuSHy FEAST GO, 1017  
 37 Death of David. MocKed TACITLY, 1015  
 38 Adonijah, brother of Solomon, proclaimed king. MoVing TACITLY, 1015  
 39 Solomon crowned king of Israel. MaPle TACITLY, 1015  
 40 Adonijah and Joab put to death by order of Solomon. RoSe DESTROY, 1014  
 41 Solomon's judgment upon the child. ReaD *The* HEIGHT of WISDOM, 1013  
 42 Solomon dedicated the temple. RuN THIS SEER, 1004

## FIFTH GRAND DIVISION OF TIME.

From the Dedication of Solomon's Temple to the Founding of Rome.

HOMER—*New Line*, 252.

- 43 The queen of Sheba visited Solomon. RoMan THIS SCENE, 1002  
 44 Solomon's 700 wives and 300 concubines. RaRe BEHAVIOR, 984  
 45 Solomon erected altars to the false gods. ReaL BUY FAME, 983  
 46 Death of Solomon. WretCHed BEGUILÉ, 975  
 47 Division of Israel and Judah under Jeroboam. RaGged BEGUILÉ, 975  
 48 Jeroboam erected temples to the idols. RoVing BEGUILÉ, 975  
 49 Shishak, king of Egypt, plundered the temple of Jeroboam. RuBy BEQUEATH, 971  
 50 Zerah invaded Judah with a million of men. LaZy BRIGHT, 941  
 51 Zimri, the usurper, defeated by Omri. LiTtle BE UNHAPPY, 929  
 52 Zimri burnt himself and his family in his own house. LeaN PANIC, 927  
 53 Omri, king of Israel, made Samaria the seat of his kingdom. LuMinous BANNER, 924  
 54 Ahab king of Israel. LaRge BEAUTIFY, 918  
 55 The reign of Jehosaphat, king of Israel began, LoyaL BETTER, 914  
 56 Homer flourished. LaSHed-up POETRY, 914  
 57 The prophet Elijah fed by ravens in the wilderness. LucKy PITEOUS, 910  
 58 Elijah's trial with the prophets of Baal. LiVely BESIEGE, 906



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|--|----------------------------|
| 59 Elisha anointed by Elijah as his successor.                         | LiBerty PASSAGE, 906       |
| 60 Kingdom of Assyria came to an end.                                  | ChoSen BASIS, 900          |
| 61 Ahab took possession of Naboth's vineyard.                          | SHoT FOP of a BOY, 899     |
| 62 Elijah the prophet translated to Heaven.                            | SHiNing HEAVY BADGE, 896   |
| 63 God, by two bears, destroyed forty-two children for mocking Elisha. | GeM HEAVY BADGE, 896       |
| 64 Elisha's miracles of the oil, the pottage, and the bread.           | CHeeRless FABLE, 895       |
| 65 Namaan's leprosy cured by Elisha.                                   | SHaLOW VAPOR, 894          |
| 66 The army, sent to take Elisha, smitten with blindness.              | JudGe HEAVY BOMB, 893      |
| 67 Benhadad, king of Syria besieged Samaria.                           | SHaKen HEAVY WEAPON, 892   |
| 68 Two Hebrew mothers eat their own children.                          | SHiVered HEAVY WEAPON, 892 |
| 69 Elisha restored the Shumanite's son to life.                        | CheaP FIBS, 890            |
| 70 Laws of Lycurgus,   | CoStly FEVER, 884          |
| 71 Jehu excommunicated the family of Ahab.                             | QuieT FEVER, 884           |
| 72 Jezebel devoured by dogs.   | CuNning FEVER, 884         |
| 73 Jehu destroyed the temple and the priests of Baal.                  | CoMmon FEVER, 884          |
| 74 Athaliah precipitated from her usurped throne.                      | QueeR CIVIC FOE, 878       |
| 75 Joash proclaimed king of Judah by the high priest Jehoida.          | CLothed CIVIC FOE, 878     |
| 76 Foundation of Carthage by Dido.                                     | KitCHen HEAVY JOB, 869     |
| 77 Zechariah, the high priest, stoned to death.                        | QuaKing FORCE, 840         |
| 78 Kingdom of Macedonia founded by Caranus.                            | CoVered FATHOM, 813        |
| 79 Jonah swallowed by a whale.   | CaPacious PHYSIC, 807      |
| 80 Repentance of the Ninevites—miracle of the gourd.                   | Fuzzy HEAVY SIEGE, 806     |
| 81 Isaiah began to prophecy.   | FooT GLOBE, 759            |
| 82 Romulus founded Rome upon the Tiber.                                | FaNcy COLONY, 752          |

## SIXTH GRAND DIVISION OF TIME.

From the Foundation of Rome to the Battle of Marathon.

ROMAN KINGS.—*New chain, 262.*

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|--|-----------------------------------|
| 83 Rape of the Sabines.  | FaMed GALLOWS, 750                |
| 84 The first Messenian war.  | aiR QUEER WHIM, 743               |
| 85 Ahaz, king of Judah, set up idol worship.                       | FooLish KORAN, 742                |
| 86 Hezekiah destroyed the brazen serpent of Moses.                 | FaSHionable GAIN from a SHOW, 726 |
| 87 End of the kingdom of Israel—destroyed by Salmanazar.           | ViGorously GAINED, 721            |
| 88 Tobit, the sage, carried into captivity to Nineveh.             | ViVid GAINED, 721                 |
| 89 Miracle of the sun-dial—Hezekiah restored to health.            | VaPerous SICK TIME, 713           |
| 90 Senacherib besieged Jerusalem,                                  | PaSsage KITTEN, 712               |
| 91 Senacherib's army destroyed by an angel.                        | BeauTiful KITTEN, 712             |
| 92 Tobit loses his sight by an accident.                           | BeNding GODDESS, 710              |
| 93 Dejoces founded the Medean empire.                              | BeMoaning GODDESS, 710            |
| 94 Tobit persecuted by his ill-tempered wife.                      | BRight GAY USAGE, 706             |
| 95 The second Messenian war.                                       | BLunt SHUFFLE, 685                |
| 96 Tobias became the seventh husband of Sarah, daughter of Raguel. | PatCHed SHIVER, 684               |
| 97 Tobit recovered his sight by a miracle of his son Tobias.       | BeGging SHIVER, 684               |



- 98 The prophet Isaiah sawn asunder between two boards. BeFitting AGE of VICE, 680  
 99 Esarhaddon took Jerusalem. PaPer SHOOK the KEY, 677  
 100 Combat between the Horatii and Curatii. DeCiSively SHOWY JOKE, 667

### THIRD SERIES.

- 1 Holofernes killed by Judith. sTout SHALLOW JOY, 656  
 2 Scythians invade Media. New SHERIEF, 648  
 3 Josiah, the Pious, began to reign. Modern SHORT, 641  
 4 Ancus Martius, the fourth king of Rome. Rich SHEARS, 640  
 5 Jeremiah began to prophecy. Long GENEVA, 628  
 6 Pentateuch found by Hilkiah. CHief JOINER, 624  
 7 Sanguinary laws of Draco. Curious HUGE ENEMY, 623  
 8 Necho, king of Egypt, dethrones Jehoahaz. Fine JETS, 610  
 9 Nebuchadnezzar took Jerusalem. Bold SHOWY SIEGE, 606  
 10 First captivity of Judah under Nebuchadnezzar. DoZing SHOWY SIEGE, 606  
 11 Daniel, the prophet, carried to Babylon. TiDy JEWISH SEIGE, 606  
 12 First circumnavigation of Africa, under king Necho. TiNy JOYOUS ERA, 604  
 13 Susanna assaulted by the two elders. TaMe CHASTE, 601  
 14 Jehoiakim taken to Babylon, and imprisoned. DaRing LOW PEEP, 599  
 15 Ezekiel and Mordecai taken to Babylon. Tall LOW PEEP, 599  
 16 Laws of Solon. DaSHy HELPER, 594  
 17 End of the kingdom of Judah—destroyed by Nebuchadnezzar. DeCorated ILL and HEAVY FOE, 588  
 18 Zedekiah's eyes taken out by order of Nebuchadnezzar. DeFace ILL and HEAVY FOE, 588  
 19 First money coined at Rome. DeBased SILLY VICE, 580  
 20 Nebuchadnezzar's golden image set up. NiCe LIVES, 580  
 21 The three children saved from the fiery furnace. NoTed LIVES, 580  
 22 Daniel interpreted Nebuchadnezzar's dream of the tree. kNOWN LIKEWISE, 570  
 23 Nebuchadnezzar loses his reason. NaMeless SILLY SHEEP, 569  
 24 Nebuchadnezzar recovered his reason. NarRow LOW JAM, 563  
 25 Death of Nebuchadnezzar. NuLl ALL JOIN, 562  
 26 Jehoiachin restored to liberty by Evil Merodach. New SHaped ALL JOIN, 562  
 27 Pisistratus usurped the tyranny of Athens. NaKed LASHES, 560  
 28 Daniel's vision of the four beasts. NoVel ALL LOWLY, 555  
 29 Phocians founded the city of Marseilles. NoBle LAMP, 539  
 30 Belshazzar's Feast—Daniel explains the handwriting. AmaZing LOW MOVE, 538  
 31 Cyrus took Babylon. MeT LOW MOVE, 538  
 32 Daniel exposes the trickeries of Bel's priests. MeaN LAMECH, 537  
 33 Daniel cast into the lion's den. MiMic LAME COW, 537  
 34 Cyrus put an end to the Jewish captivity. MaRble HOLY MATCH, 536  
 35 Zerubbabel commenced the rebuilding of the temple. SmaLl HOLY MATCH, 536  
 36 First tragedy at Athens. Mushy SLOW MULE, 535  
 37 Tarquin the proud, seized upon the kingdom of Rome. MocKed ILL HUMOR, 534  
 38 Confucius published his laws. MoVing ALMIGHTY, 531  
 39 Cambyzes, son of Cyrus, ascended the throne of Persia, MAPlE ALL UNHAPPY, 529



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|--|-------------------------|
| 40 Anaximenes, of Miletus, invented the sun-dial.                      | RaCing LEANNESS, 520    |
| 41 Darius repudiated Vashti and married Esther.                        | RuDDy SLIGHTY WIFE, 518 |
| 42 Dedication of the second temple.                                    | RuNning LOUDLY, 515     |
| 43 Darius invaded the Scythians, and was repulsed.                     | RoMan HOLY DAME, 513    |
| 44 Esther saved the Jews from a general slaughter.                     | RaRe LOTS, 510          |
| 45 Triumph of Mordecai, the uncle of Esther.                           | ReaL LOTS, 510          |
| 46 Haman, the enemy of the Jews, hung on a gallows, fifty cubits high. | wRetCHed LOTS, 510      |
| 47 Feast of Purim instituted by the Jews.                              | RaGged LOTS, 510        |
| 48 Tarquin the Proud, expelled from Rome.                              | RoVing LISe, 509        |
| 49 Brutus established the Roman republic.                              | Ruby LISe, 509          |
| 50 First alliance of the Romans with the Carthaginians.                | LooSe LAZY FOE, 508     |
| 51 Sardis burnt by the Ionians.  | LIttle AIR PIPE, 499    |
| 52 First dictator of Rome—Laertius.                                    | LeNient REBUFF, 498     |
| 53 Institution of the Saturnalia by the Romans.                        | LuMinous YEAR BOOK, 497 |
| 54 Tarquin the proud died at Cuma.                                     | LaRge REPLY, 495        |
| 55 Darius undertook his unsuccessful expedition against the Greeks.    | LoyaL REPLY, 495        |
| 56 Establishment of the Roman Tribunes.                                | LaSHed-up EUROPEAN, 492 |
| 47 Banishment of Coriolanus from Rome.                                 | LUckY REPAID, 491       |
| 58 Battle of Marathon—the Greeks against the Persians.                 | LIvely REPOSE, 490      |

## SEVENTH GRAND DIVISION OF TIME.

From the Battle of Marathon to the Birth of Alexander.

GRECIAN GLORY.—*Teamer*, 134.

- |   |                           |
|---|---------------------------|
| 59 The first proposition of the Agrarian law.               | LIberty RIVAL, 485        |
| 60 Aristides the Just, banished from Athens.                | ChoSen ROVER, 484         |
| 61 First Questors at Rome.                                  | SHoT RAVEN, 482           |
| 62 Battle of Thermopylæ—Leonidas opposes Xerxes.            | SHiNing WAR OFFICE, 480   |
| 63 Battle of Salamis—Themistocles defeated the Persians.    | GeM WAR OFFICE, 480       |
| 64 Battle of Plataea.                                       | CheeRless HEROIC BOY, 479 |
| 65 Flight of Themistocles to Persia.                        | SHaLlow ROGUISH, 476      |
| 66 Ezra commissioned by Artaxerxes to build Jerusalem.      | JudGe RASH GO, 467        |
| 67 Cincinnatus, dictator of Rome.                           | ShaKen RELISH, 456        |
| 68 Nehemiah made governor of Judea by Artaxerxes.           | SHiVered RULER, 454       |
| 69 Creation of the Decemvirs.                               | CheaP ROYALTY, 451        |
| 70 Banishment of Decemvirs, and death of Virginia.          | CoStly SORRY RAPE, 449    |
| 71 Herodotus read his history at the Olympic games.         | QuiET RARELY, 445         |
| 72 First military Tribunes at Rome.                         | CuNning RARELY, 445       |
| 73 Plebeians allowed to intermarry with the Patricians.     | CoMmon RARELY, 445        |
| 74 Pericles successful in the Samian war.                   | QueeR WARRIORS, 440       |
| 75 Roman Censors appointed.                                 | CLothed ROME AWAKE, 437   |
| 76 Ezra flourished.   | KitCHen REMAKE, 437       |
| 77 Peloponnesian war, lasted 27 years.                      | QuaKing WARMED, 431       |
| 78 The plague at Athens.                                    | CoVered RAINBOW, 429      |
| 79 Pericles died, aged 70.                                  | CaPacious RAINBOW, 459    |
| 80 Malachi, the last of the prophets, died.                 | FaCe RUINS, 420           |
| 81 End of the Peloponnesian war—thirty tyrants rule Athens. |                           |
| 82 Retreat of the ten thousand.                             | FaNcy ARREST, 401         |
| 83 Expulsion of thirty tyrants from Athens, by Thrasybulus. | FaMed RESIDUE, 401        |
| 84 Death of Socrates.                                       | FaiR ROSES, 400           |



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|---|--------------------------|
| 85 Battle of Coronea.                               | FooLish EMPIRE, 394      |
| 86 Thucydides, the historian, died, aged 80.        | FaSHionable EMBODY, 391  |
| 87 Rome taken by the Gauls under Brennus.           | ViGorous EMBASSY, 390    |
| 88 Battle of Leuctra—Bœotians and Lacedæmonians.    | ViVid MAGGOT, 371        |
| 89 The first Plebeian consul at Rome.               | VaPorous MAGIC, 367      |
| 90 The Thebans triumph at Mantinea.                 | PaSable MACHINE, 362     |
| 91 Hippocrates, the father of medicine, died, a 90. | BeauTiful MATCH DIE, 361 |
| 92 Discovery of analysis, by Plato.                 | BeNding MATCHES, 360     |
| 93 Xenophon, the historian, died, a 90.             | BeMoaning SMALL BOY, 359 |
| 94 The accession of Philip II, king of Macedon.     | BRight SMALL BOY, 359    |
| 95 The breaking out of the sacred war.              | BLunt MY LIFE, 358       |
| 96 Birth of Alexander the Great.                    | PatCHed SMALL SHOW, 356  |

### EIGHTH GRAND DIVISION OF TIME.

From the Birth of Alexander to the Destruction of Carthage.

ROMAN RENOWN.—*Knights*, 210.

- |  |                        |
|--|------------------------|
| 97 The erection of the Mausoleum, the sixth wonder of the world. | BeGging MALLET, 351    |
| 98 The Plebeians admitted to the censorship.                     | BeFitting MALLET, 351  |
| 99 Second commercial treaty between Rome and Carthage.           | PaPer MERE FOE, 348    |
| 100 Plato, the philosopher, died, aged 80.                       | DeCiSive MERE FOE, 348 |

### FOURTH SERIES.

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|--|----------------------------|
| 1 Samnite war with the Romans, continued 53 years,                     | s'Tout MAW WORM, 343       |
| 2 Battle of Chæroneia, won by Philip,                                  | New MIMIC, 337             |
| 3 Plebeians admitted to the Prætorship of Rome. Modern WHIM of HOMAGE, | 336                        |
| 4 Accession of Darius and Alexander the Great to the throne,           | Rich AIM at MUCH, 336      |
| 5 Destruction of Thebes by Alexander,                                  | Long MEMORY, 334           |
| 6 Battle of Granicus won by Alexander.                                 | Chief MEMOIR, 334          |
| 7 Alexander captured the city of Tyre.                                 | Curious HOME of AMMON, 332 |
| 8 Battle of Arbela; fall of Darius.                                    | Finely MAIMED, 331         |
| 9 Alexander penetrated into India.                                     | Bold MANIAC, 327           |
| 10 Death of Alexander, aged 32.  | Dozing MAN of WAR, 324     |
| 11 Demosthenes poisoned himself, aged 60.                              | TiDy MINION, 322           |
| 12 Aristotle the philosopher died, aged 62.                            | TeNacious HUMANITY, 321    |
| 13 The Samnites pass the Romans under their yoke.                      | TaMe HUMANITY, 321         |
| 14 Seleucus established the kingdom of Syria.                          | DaRing MATTER, 314         |
| 15 Battle of Ipsus. Antigonos defeated.                                | TaLl MAST, 301             |
| 16 Papirius Cursor erected the first sun dial at Rome.                 | DutCH NEW BEAM, 293        |
| 17 Pharos of Alexandria built,   | DeCoRated NEW FIRE, 284    |
| 18 College and Library of Alexandria founded.                          | TouGH INFAMY, 283          |
| 19 The Gauls invaded Greece.   | TaBby HEN COOP, 279        |
| 20 Septuagint translation of the Old Testament.                        | NiCe SYNAGOGUE, 277        |
| 21 The first silver money coined at Rome.                              | NoTed NEW SHIP, 269        |
| 22 The first Punic war commenced.                                      | KNown INJURY, 264          |
| 23 The first naval conquest of the Romans.                             | NaMeless OWN CHOICE, 260   |
| 24 Regulus defeated by the Carthagenians.                              | NaRow ANALOGY, 256         |
| 25 All the records in China destroyed by an imperial edict.            | NuLl ANARCHY, 247          |



- 26 End of the first Punic war. New SHaped NEW RUIN, 242  
 27 First play acted at Rome. NaKed NURSE, 240  
 28 Temple of Janus shut for the first time since Numa. NoVel ANOMALY, 235  
 29 The first divorce at Rome. NoBle ENMITY, 231  
 30 Publication of the first Roman history, Fabius Pictor. MaSSive NEW NAIL, 225  
 31 First Physician at Rome, MeTalic NEW TOP, 219  
 32 Destruction of Saguntum by Hannibal. MaN NEW TOP, 219  
 33 Second Punic War. MiMic NATIVE, 218  
 34 Battle of Thrasymene. MaRble NUT HOOK, 217  
 35 Battle of Cannæ won by Hannibal. MaLi NOISY SHOW, 216  
 36 The Romans took Syracuse. MiSSionary INDIAN, 212  
 37 Hannibal defeated at the battle of Zama. MocK SNOWY SCENE, 202  
 38 End of the second Punic War. MoVing HONESTY, 201  
 39 The Romans defeat Antiochus the Great. MaPle HEAD PIECE, 190  
 40 Scipio Asiaticus. RoSy HEAD PIECE, 190  
 41 Asiatic luxuries first brought to Rome. ReD TOPAZ, 190  
 42 Philopœmen abolished the laws of Lycurgus. RuNning EIGHTY-FIVE, 188  
 43 Banishment of Scipio Africanus from Rome. RoMan TOUGH GO, 187  
 44 Heliodorus struck senseless in the temple by an angel. RaRe DECAYISH, 176  
 45 Jason by corrupting Antiochus was made High Priest. ReaL ETHICAL, 175  
 46 Manelus by bribery obtained the High Priesthood. WRetCHed TICKLE, 175  
 47 Antiochus laid waste India and destroyed Jerusalem. RaGged HAT CASE, 170  
 48 Invention of paper in China. RoVing TAX, 170  
 49 Perseus defeated and brought prisoner to Rome. RiPe DUTCH VOW, 168  
 50 General slaughter of the Jews by Apollonius. LaZy DUTCH FOE, 168  
 51 The seven brothers tortured to death by Antiochus. LiTtle DASHY GAY, 167  
 52 Mattathias and his five sons resist the tyranny of Antiochus. LeaN DUTCH HAWK, 167  
 53 First Library erected at Rome. LuMinous DASHY and GAY, 167  
 54 Apollonius defeated and slain by Judas Maccabeus. LaRge ADJUDGE, 166  
 55 Nicanor's army defeated by Judas Maccabeus. LoyaL ADJUDGE, 166  
 56 Lycias with a powerful army defeated by Maccabeus. LaSHed up WHITISH HILL, 165  
 57 Heroic self-sacrifice of Eleazar, brother of Maccabeus. LucKy TEACHER, 164  
 58 Antiochus died, smitten by the hand of God. LiVely TEACHER, 164  
 59 Menelaus, the High Priest, put to death. LiBerty HOT CHAIN, 162  
 60 First edict that banished from Rome philosophers and rhetoricians. CHoSen DIGIT, 161  
 61 Nicanor's blasphemy, defeat and death, SHoT DASHED, 161  
 62 Bacchides invaded Judea with a powerful army. SHiNing DASHED, 161  
 63 Judas Maccabeus slain fighting against Bacchides. JeM DASHED, 161  
 64 Jonathan, brother of Judas, entered into allegiance with the Romans. CHeeRless DASHED, 161  
 65 Alcimus the High Priest struck dead in the Temple. SHaLlow AUDACIOUS, 160  
 66 Jonathan, first of Asmonean dynasty, made High Priest. JudGe ITALIAN, 152  
 67 Temple built at Heliopolis, in Egypt. CHaLk TOOL HOUSE, 150  
 68 Third Punic War began. CHaTtered TROOP, 149  
 69 Destruction of Carthage by the Romans. CHeaP OUTRAGE, 146

## NINTH GRAND DIVISION OF TIME.

From the Destruction of Carthage to the days of Julius Cæsar.

WARS OF MARIUS.—*Judge*, 66.

- 70 Simon renewed the League with the Romans. CoStly DRAM, 143  
 71 Sovereignty of Judea settled upon Simon and his heirs. QuieT DRONE, 142



72 John Hyrcanus succeeded Simon.	CuNning TIMELY, 135
73 Destruction of Numantia by Scipio.	CoMmon DEMON, 132
74 Tiberius Gracchus slain.	CuRious DEMON, 132
75 Kingdom of Pergamus annexed to the Roman republic.	CLothes DEMON, 132
76 Caius Gracchus slain.	KitCHen DIMITY, 131
77 The Jugurtha War commenced.	QuicK EDITED, 111
78 Aristobulus becomes king of Judea.	CoVered DESK, 107
79 Marius defeated and captured Jugurtha.	CaPacious HASTY SIEGE, 106
80 Alexander Janneus appointed king of Judea.	FuZzy WOOD SAGE, 106
81 The Cimbric War.	FOOT DESIGN, 102
82 King of Parthia sent to China a political embassy.	FiNe PAGE, 96
83 Social and Mithridatic Wars.	FaMed HEAVY FOE, 88
84 Marius and Sylla engaged in civil war.	FaiR HEAVY FOE, 88
85 Sylla plundered Athens and slaughtered its inhabitants.	FOOLish SAVAGE, 86
86 Sylla dictator. His sanguinary proscriptions.	FaSHionable FUN, 82
87 Queen Alexandra succeeds her husband Alexander.	ViGerous CALF, 78
88 Spartacus raised the Servile War.	ViVid GAME, 73
89 Hyrcanus II. succeeded his mother Alexandra.	VaPorous GAS, 70
90 Mithridates vanquished by Lucullus.	PaSsable SHIP, 69
91 Aristobulus II. dethroned his brother Hyrcanus II.	BeauTiful JUG, 67
92 War of the pirates. Pompey soon destroyed them.	BeNding SHOCK, 67
93 Jerusalem taken by Pompey the Great.	BehoMing SHAME, 63
94 Pompey restored to Hyrcanus II. the government of Judea.	BRight GEM, 63
95 Catiline's conspiracy discovered by Cicero.	BLunt SHAME, 63
96 First Triumvirate between Pompey, Crassus and Cæsar.	PatCHed CHAISE, 60
97 Cicero banished from Rome at the instigation of Claudius.	BeGging LIFE, 58

## TENTH GRAND DIVISION OF TIME.

From Julius Cæsar to the Birth of Christ.

ROMAN LITERATURE.—*Chaise*, 60.

98 Cæsar crossed the Rhine and invaded Britain.	BeCoMING ILL WILL, 55
99 Crassus vanquished by the Parthians.	POppy ELM, 53
100 Cæsar made of Gaul a Roman Province.	DeCiSive HALT, 51

## FIFTH SERIES.

1 Cæsar proclaimed Dictator of Rome.	RUBY, 49
2 Second "Civil War."	New REVIEW, 48
3 Battle of Pharsalia. Cæsar defeats Pompey.	Modern RORE, 48
4 Cæsar conquered Alexandria. Ptolmaic library set on fire.	Rich WRECK, 47
5 Herod the Great appointed Prefect of Galilee by the Romans.	Long RAG, 47
6 Cato kills himself at Utica.	CHief RAGE, 46
7 Cæsar murdered by his conspirators.	Curious ERROR, 44
8 Second triumvirate between Octavius, Antony and Lepidus.	Fine ARMY, 43
9 Battle of Philippi,—Brutus and Cassius overthrown.	Bold RUN, 42
10 Antigonus wrested the kingdom from his uncle Hyrcanus.	DoZing RUSE, 40
11 Herod took Jerusalem and became king.	TiDy MUG, 37
12 Sallust, a philosophical historian, died, aged 56.	TiNy MATCH, 36
13 Battle of Actium—Antony defeated by Octavius.	TaMe EMMET, 31
14 Death of Cleopatra and Antony.	DaRing MISS, 30
15 Second shutting of the temple of Janus.	TaLl NAP, 29



16 Varro, the most learned of the Romans died, aged 87.	DutCH ENVOY,	28
17 Augustus proclaimed Emperor of Rome.	DecoRATED NAG,	27
18 Ovidius banished by Augustus.	TouGH SINS,	20
19 Virgil,* as poet, excelled his cotemporary.	TIBULLUS 19 a.	50
20 Herod begun to build the temple at Jerusalem.	NiCe DECK,	17
21 Augustus Pontifex Maximus burnt 2000 pontifical books.	NoTed TIME,	13
22 Horace, the greatest of the Lyric poets, died, aged 56.	kNowN JOY,	8
23 Temple finished and dedicated by Herod.	NaMeless FOE,	8
24 Zacharias, the priest, struck dumb in the temple.	NaRrow AISLE,	5
25 John the Baptist born six months before our Savior.	NuLlify ERA,	4
26 BIRTH OF CHRIST, four years before the vulgar era.	New SHaped HERO,	4

## ELEVENTH GRAND DIVISION OF TIME.

From the Nativity of Christ to the reign of Constantine.

TEN PERSECUTIONS.—*Message*—306.

27 Infants of Bethlehem slain by order of Herod.	NaKed HOME,	3
28 Death of Herod the Great.	NoVel AIM,	3
29 Christian era commenced.	NoBle RECESS of WAR,	A. M. 4004
		A. D.
30 Varus, the Roman General, defeated by Herman.	MoSsy ABBEY,	9
31 Tiberius became Emperor of Rome.	MeTallie DOWER,	14
32 Livy, the prince of Roman historians died, aged 67.	MeaN DECOY,	17
33 Pontius Pilate, governor of Judea.	MiMic YANKEE,	27
34 Strabo, geographer and historian.	MaRble KNIFE,	28
35 Crucifixion of Jesus Christ.	SMaLl MAIM,	33
36 St. Paul's miraculous conversion.	MiSsionary MORE,	34
37 Caligula became the fourth emperor of Rome.	Mock HOMAGE,	36
38 The disciples first called Christians, at Antioch.	MoVing RIDE,	41
39 Claudius reigned, a weak and stupid sovereign.	MaPle RIDE,	41
40 The council at Jerusalem.	RoSe ALOES,	50
41 Sergius Paulus, the Proconsul, converted through Paul.	ReD LION,	52
42 St. Paul went to Athens.	RuNning ALONE,	52
43 Argippina murdered Claudius to make her son Nero king.	RoMAN LIAR,	54
44 Nero poisoned Britannicus.	Rare ILL WILL,	55
45 Paul plead before Felix.	ReaL LUCKY,	57
46 Paul made his defence before Festus.	wRetCHed CHAISE,	60
47 Nero burnt Rome, and charged it upon the Christians.	RaGged CHAIR,	64
48 Paul set at liberty.	RaVing JURY,	64
49 Nero put Seneca to death.	RiPe JAIL,	65
50 St. Peter crucified, and St. Paul beheaded.	LaZy JUDGE,	66
51 Destruction of Jerusalem.	LiTtle GAS,	70
52 Vespasian, a popular emperor.	LeaN GOOSE,	70
53 Titus an excellent prince.	LuMinous CUP,	79
54 Pliny suffocated at the first recorded eruption of Vesuvius.	LaRge COPY,	79
55 The second general persecution of Christians.	LoyaL BULL,	95
56 Quintillian, a celebrated rhetorician died.	LaSHed BALE,	95
57 Tacitus, the Roman historian died.	LucKy PEEP,	99
58 Third persecution under Trojan.	LiVely HASTY SIEGE,	106
59 Accession of Adrian.	LiBerty TIDY COW,	117
60 Heresy of Marcian, who acknowledged three Gods.	CHoSen TAME ROE,	134
61 Insurrection in which half a million of Jews die.	ShoT TAMELY,	135
62 Plutarch, the principal biographer of antiquity.	SHiNing AUTHORS,	140

\* The name of the poet Tibullus gives both the age and death of Virgil.



63 Heresy of Valentine, who admitted several gods.	GeM TORN, 142
64 The Saracens first mentioned in history.	CHeeRless TRIBE, 149
65 The fourth persecution under M. A. Antonius.	[SHaLlow ADJUDGE, 166
66 Fifth persecution of Christians, under Severus.	JudGe NO SIN, 202
67 Caracalla became emperor, and slew his brother.	CHaIK WANTED, 211
68 Alexander Severus became emperor.	SHiVered UNKNOWN, 222
69 Maximin, who excited the sixth persecution, slain.	CHeap ENAMEL, 235
70 Pompey's Theatre burnt.	CoStly UNROOF, 248
71 Seventh persecution of Christians, under Decius.	QuiET NAILS, 250
72 Goths invaded the Roman empire.	CunNing NAILS, 250
73 Eighth persecution, under the emperor Palarien.	CoMmon NEW LEAF, 258
74 Era of the thirty tyrants, and invasion of the Huns.	
75 Emperor Claudius defeated the Goths.	CuRious UNHOLY BOY, 259
76 Aurelian excited the ninth persecution.	CLothed NEW CHIEF, 268
77 Diocletian became emperor of Rome.	KitCHen YANKEE HUM, 273
78 Diocletian divided the Empire.	QuicK NAMER, 234
79 Diocletian excited the tenth persecution.	QuiVering KNEE-PAN 292
80 Death of wicked Maximus.	CaPacious MUSEUM, 203
81 Arius propagated his doctrine.	FuZzy MAD WHIM, 313
82 Constantine the Great, sole emperor.	FooT MOTIVE, 318
	FiNe MOON in MAY, 323

### TWELFTH GRAND DIVISION OF TIME.

From the Reign of Constantine to the Extinction of the Western Empire.

NORTHERN INVASION.—Fox, 870.

83 First Ecclesiastical Council at Nice.	FaMed MANUEL, 325
84 Constantine embraced Christianity.	FaiR MEAN FOE, 328
85 Removal of the seat of empire from Rome to Constantinople.	
	FooLish MANY WEEP, 329
86 Death of Constantine.	FaSHionable MIMIC, 337
87 The empire divided among Constantine's three sons.	ViGorous MIMIC, 337
88 Julian, the apostate emperor—he restores Paganism.	ViVid MATCHES, 360
89 Theodosius, the last sole Roman emperor.	VaPorous MOVE OFF, 388
90 Theodosius prohibited Paganism.	PaSsable IMPIOUS, 390
91 Theodosius divided the empire into Eastern and Western.	
	BeauTiful AMPLE, 395
92 Arcadius succeeded to the Eastern, and Honorius to the Western Empire.	
	BeNding AMIABLY, 395
93 The first bell founded.	BeMoaning RECESS, 400
94 The kingdom of the Visigoths founded.	BRight RETINUE, 412
95 The kingdom of the Burgundian seestablished.	BLunt RHYTHM, 413
96 The kingdom of the Franks founded.	PatCHed RUINS, 420
97 The kingdom of the Vandals in Africa founded.	BeGging RANGE, 426
98 The Romans withdrew from Britain.	BeFitting RUNAWAY FOE, 428
99 The Saxons entered Britain.	PoPpy RARE PAY, 449
100 Atilla defeated at the battle of Chalons.	DeCiSive REALITY, 451



## SIXTH SERIES.

- |   |                    |
|---|--------------------|
| 1 Death of Atilla, "The Scourge of God."  | REALM, 453         |
| 2 Genseric, the Vandal, pillaged Rome.    | New REAL SHOW, 456 |
| 3 Accession of Leo the Great.             | Modern RELIC, 457  |
| 4 Augustus Romulus, last emperor of Rome. | Rich ROGUSH, 476   |

## THIRTEENTH GRAND DIVISION OF TIME.

From the Extinction of the Western Empire to the Flight of Mahomet.

JUSTINIAN CODE.—*Trash*, 146.

- |  |                             |
|--|-----------------------------|
| 5 Death of Genseric.                                 | Long AIRY QUACK, 477        |
| 6 The battle of Soissons, gained by Clovis.          | CHief RIVAL, 485            |
| 7 Anastasius, emperor of the East.                   | CURious RABBIT, 491         |
| 8 Odoacer murdered by Theodoric.                     | Fine RIPE WHIM, 493         |
| 9 Clovis converted to Christianity.                  | Bold RUBBISH, 496           |
| 10 Clovis made Paris his capital.                    | DoZing LIGHTS, 510          |
| 11 Persecution of the Jews.                          | TiDy LIGHT HOPE, 519        |
| 12 Theodoric put Boethus to death.                   | TiNy LEAN JEW, 526          |
| 13 An earthquake in the East.                        | Tame LINK, 527              |
| 14 Justinian, emperor of the East.                   | DaRing LINK, 527            |
| 15 The first monastery of the West at Monte Cassino. | Tall LION PAW, 529          |
| 16 An insurrection at Constantinople.                | DutCH LOW MAN, 532          |
| 17 Justinian's code of laws.                         | DeCorated LAW to MAIM, 533  |
| 18 Belisarius took Carthage.                         | TouGH LAME HERO, 534        |
| 19 Computation of time from the Christian era.       | DeBase SOLEMN AGE, 536      |
| 20 Belisarius conquered Italy, and took Rome.        | NiCe LAME COW, 537          |
| 21 Belisarius refuses the sceptre of Italy.          | Noted LAW RACE, 540         |
| 22 Arthur, king of Britain, was slain.               | kNowN LEARN, 542            |
| 23 Totila, the Goth, plundered Rome.                 | NaMeless LARGE, 546         |
| 24 Rome re-taken by Belisarius.                      | NaRrow WHOLE ROBE, 549      |
| 25 Rome recovered by Totila.                         | NuLl LAWLESS, 550           |
| 26 Silkworms brought to China by two monks.          | New-SHaped LOYALTY, 551     |
| 27 Narses defeated the Goths and governed Italy.     | NaKed ILL and LAME, 553     |
| 28 An earthquake in the East.                        | NoVel LOWLY ECHO, 557       |
| 29 Kingdom of Lombards founded.                      | NoBle LAW CHIEF, 568        |
| 30 The Latin language ceased to be spoken in Italy.  | MoSsy LEAVES, 580           |
| 31 Antioch destroyed by an earthquake.               | MeTallic LOW ABYSS, 590     |
| 32 Gregory the Great becomes Pope.                   | MeaN LOW ABYSS, 590         |
| 33 St. Augustine went to Britain.                    | MiMic HELP of a JEW, 596    |
| 34 Papal supremacy and image worship.                | MaRble JOYOUS AGE, 606      |
| 35 Heraclitus became emperor.                        | SMaLl SHADOWS, 670          |
| 36 Clotaire II. sole king of France.                 | MiSsionary WATCHED HIM, 613 |
| 37 Hegira, or flight of Mahomet.                     | Mock GENUINE, 622           |

## FOURTEENTH GRAND DIVISION OF TIME.

From the Flight of Mahomet to the Crowning of Charlemagne.

SARACEN DOMINION.—*Take a vow*, 178.

- |                                   |                      |
|-----------------------------------|----------------------|
| 38 Death of Mahomet.              | MoVing WATCHMAN, 632 |
| 39 Pens first made from quills.   | Maple SHAM VOW, 634  |
| 40 Alexandrian library destroyed. | RoSy SHEARS, 640     |



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|---|---------------------------|
| 41 The Lombard code of laws.  | RuDdy CHARM, 643          |
| 42 The Saracens took Cyprus.  | RuNning SHERIFF, 648      |
| 43 The Saracens took Rhodes and erected the Colossus.                   | RoMan JULIAN, 652         |
| 44 Organs first used in churches.                                       | RaRe SHOWY HELP, 659      |
| 45 Constantinople besieged by the Saracens.                             | ReaLly SHAKEN, 672        |
| 46 The Saracens invaded Spain, but were expelled.                       | WretCHed CHUCKLE, 675     |
| 47 Ceadwalla took Sussex and Kent.                                      | RaGged SHOWY VOYAGE, 686  |
| 48 After the battle of Xeres, Roderick was drowned in the Guadalquivir. | RoVing KITTEN, 712        |
| 49 The Saracens took Spain.   | RiPe ACADEMY, 713         |
| 50 Leo III. Greek emperor.  | LaZy GOTHIC, 717          |
| 51 Pope Gregory expelled the Lombards.                                  | LiTTle CANBOY, 729        |
| 52 The battle of Tours lasted seven days.                               | LeaN COMMON, 732          |
| 53 Saracen Caliph Almanzar.   | LuMinous GLORY, 754       |
| 54 End of the Lombard kingdom.  | LaRge QUAKER, 774         |
| 55 Haroun-Al Raschid, Caliph—he did much for science.                   | LoyaL GAY VOYAGE, 786     |
| 56 Constantine reigned.   | LaSHed up GAY VOYAGE, 786 |
| 57 Restoration of image worship.  | LucKy GAVE a KEY, 787     |
| 58 Irene murdered her son Constantine.                                  | LiVely GAVE a KEY, 787    |
| 59 The Danes appear in England.   | LiBerty GAVE a KEY, 787   |
| 60 Charlemagne emperor.   | ChoSen FACES, 800         |

## FIFTEENTH GRAND DIVISION OF TIME.

From the Crowning of Charlemagne to the First Crusade.

NEW WESTERN EMPIRE.—*Nobly*, 295.

- |  |                             |
|--|-----------------------------|
| 61 Leo, the Armenian, became Greek emperor.                | SHoT FATHOM, 813            |
| 62 Louis, the German, reigned.                             | SHiNing FATIGUE, 817        |
| 63 Michael II., the Stammerer emperor.                     | GeM FANCY, 820              |
| 64 Egbert united the Saxon heptarchy.                      | CHeerLess EVENT, 821        |
| 65 Michael III, the Drunkard, ascended the throne of Rome. | SHaLlow FROWN, 842          |
| 66 Union of the Picts and Scots, forming Scotland.         | JudGe FORM, 843             |
| 67 The Normans took Rouen.                                 | CHaLK FORM, 843             |
| 68 Alfred defeated by the Danes near Wilton.               | SHiVered HEAVY COIN, 872    |
| 69 Charles the Fat, emperor.                               | CHeaP FIFTY, 881            |
| 70 Oxford University founded.                              | CoStly SAFE VOYAGE, 886     |
| 71 Louis III., emperor of Germany.                         | QuiET HALF a BABY, 899      |
| 72 Death of Alfred the Great.                              | CuNning BASIS, 900          |
| 73 Normans established in Normandy.                        | CoMmon BUTTON, 912          |
| 74 Five German nations elect an emperor.                   | CuRious BUTTON, 912         |
| 75 Constantine VII. Emperor.                               | CLothes BUTTON, 912         |
| 76 Otho, the Great, emperor.                               | KitCHen PAY an IMAGE, 936   |
| 77 Italy pillaged by Berenger.                             | QuicK BULB, 959             |
| 78 Hugh Capet, king of France.                             | QuiVering BAY FOG, 987      |
| 79 Arabic numerals introduced.                             | CaPacious DOZY SWISS, 1000  |
| 80 Ethelred massacred the Danes.                           | FuZzy DIOCESAN, 1002        |
| 81 A large comet appeared in Leo.                          | FooT WHETSTONE, 1012        |
| 82 Romanus II., emperor.                                   | FiNe DOZY KNAVE, 1028       |
| 83 Leo poisoned Romanus, her husband.                      | FaMed DOZY MOOR, 1034       |
| 84 Christian kingdoms of Spain united by Sancho.           | FaiR DISMAL, 1035           |
| 85 Battle of Hastings—William I. conquered.                | FooLish ODIOUS JUDGE, 1066  |
| 86 France ravaged by William the Conqueror.                | FaSHionable DIZZY FOG, 1087 |
| 87 The first of the Crusades.                              | ViGorous DISPATCH, 1096     |



## SIXTEENTH GRAND DIVISION OF TIME.

From the First Crusade to the Founding of the Turkish Empire.

CRUSADERS.—*Answer*, 204.

88 Jerusalem taken by the Crusaders.	ViVid DIZZY POPE, 1099
89 An earthquake in Italy.	VaPorous DEDUCES, 1100
90 Wars between England and France began.	PaSsable TIDE of TIME, 1113
91 The shipwreck, Prince Henry drowned.	BeauTiful DEADNESS, 1120
92 Beneventum, Capua, taken by Roger, king of Sicily, from the Pope.	BeNding STOUT MEAL, 1135
93 Alphonso, the first king of Portugal.	BeMoaning STOUT MOB, 1139
94 Manuel I., Greek emperor.	BRight DAY DREAM, 1143
95 The second crusade.	BLunt DETERRING, 1147
96 Frederic Barrabossa came to the throne.	PatCHed TITLE NEW, 1152
97 Genghis Khan, the greatest of murderers.	BeGging DETACHER, 1164
98 The invasion of Ireland by Henry II.	BeFitting TOT KING, 1172
99 Saladin took Jerusalem.	PoPpy STOUT FIG 1187
100 The third crusade undertaken.	DeCiSive STOUT FIB, 1189

## SEVENTH SERIES.

1 Richard the Lion King of England.	TIDE of FAME, 1189
2 Crusaders took Acre.	New DEAD POPE, 1199
3 Companus, of Lombardy, the astronomer.	Modern TIDY BABY, 1199
4 The fourth crusade undertaken.	Rich DENIZEN, 1202
5 Battle of Tolosa between the Christians and Moors.	Long *UNDONE, 1212
6 The battle of Bouvines, between Philip and John.	CHief THUNDER, 1214
7 Magna Charta granted by king John.	Curious TIN IDOL, 1215
8 The fifth crusade.	Fine AUTHENTIC, 1217
9 Louis IX., king of France.	Bold ATHENIAN AGE, 1226
10 The sixth crusade, by Frederick II.	DoZing DOVE ENOUGH, 1228
11 The Hanseatic league of the towns.	TiDy DOWNWARD, 1241
12 The seventh crusade, by Louis IX.	TiNy TENERIFFE, 1248
13 Alphonso X., king of Castile and Leon.	TaMe TONE of a LION, 1255
14 Linen first made in England.	DaRing TONE of a LOOM, 1252
15 The second Greek empire established.	TaLi DUNLAP, 1259
16 The first parliament of England.	DutCH DINGY WALL, 1265
17 Louis IX. set on foot the eighth crusade, in which he died.	DeCorated TON of WAX, 1270
18 Glass mirrors invented.	TouGH TIN KITE, 1271
19 The orders of Mendicants reduced to the Dominicans, Franciscans, Carmelites, and Hermits of St. Augustine.	DeBase TAWNY QUEEN, 1272
90 Sicilian Vespers, 4000 French massacred.	NiCe TIN VEIN, 1282
21 The conquest of Wales by England.	NoTed THIN FAME, 1283
22 Philip the Fair, king of France.	kNowN DOWNFALL, 1285
23 The decision of Edward I. between Baliol and Bruce.	NaMeless TIN PAN, 1292
24 Wallace's attempt to free Scotland.	NaRrow HEATHEN PACK, 1297
25 Founding of the Turkish empire.	NuLlified TIN PIPE, 1299



## SEVENTEENTH GRAND DIVISION OF TIME.

From the Founding of the Turkish Empire to the Taking of Constantinople.

ROMAN SCHISM.—*Tall row, 154.*

26	Mariner's compass invented.	New SHaped TIME with the SUN,	1302
67	Battle of Bannockburn—Scotland freed.	NaKed DIAMETER,	1314
68	Battle of Morgarten, independence of Switzerland.	NoVel TIMIDLY,	1315
29	Notes of of music invented.	NoBle TIME to MUSE,	1330
30	Gunpowder invented.	AmaZing TIME to be MAD,	1331
31	Union of Rense, opposition to the Pope.	MeeT TIME to MOVE,	1338
32	Cannon invented.	MeaN *MARS,	1340
33	Battle of Cressy, gained by the English.	Mimic *MARCH,	1356
34	A pestilence prevailed through Europe.	MaRble TIME ROUGH,	1348
35	Peter the Cruel came to the throne.	SmaLI DOOMLESS,	1350
36	Great earthquake in South Roumelia.	MuSHy TAME LILY,	1355
37	Battle of Poitiers, king John taken prisoner.	Mock DEMOLISH,	1356
38	John Wickliffe commenced a reformation.	MoVing DUMB SHOWS,	1360
39	Invention of metal drawing and pins.	Maple DUMB SHOWS,	1360
40	Accession of Charles V., of France.	RoSe *IMAGERY,	1364
41	Accession of Tamerlane.	ReD DUMB OX,	1370
42	The invention of playing cards.	RuNning TIME of VICE,	1380
43	The insurrection of Wat Tyler in England.	RoMan TAME FIGHT,	1381
44	John of Portugal, the Usurper, came to the throne.	RaRe TAME FELLOW,	1385
45	Accession of the house of Lancaster in Henry IV.	ReaL DUMPY BOY,	1399
46	Accession of Sigismund.	WretCHed TIRADES,	1410
47	Battle of Agincourt, the English defeated the French.	RaGged ADROITLY,	1415
48	The treaty of Troyes.	RoVing ADHERENCE,	1420
49	The Vulgar Christian era introduced into Portugal.	RiPe *REOWN,	1422
50	Joan of Arc raised the siege of Orleans.	LaZy TRUE KNAVE,	1428
51	Joan of Arc burnt at the stake by the English.	LiTtle DAIRY MAID,	1431
52	Cosmo I., of Florence, the father of his country.	LeaN DREAMER,	1434
23	Alphonso V., of Naples, came to the throne.	LuMINous TURMOIL,	1435
54	Invention of Carriages.	LaRge *WAR HORSE,	1440
55	Invention of Printing.	LoyaL *REWARD,	1441
56	Constantine XIII., last of the Greek emperors.	LaSHed DEAR REVIEW,	1448
57	Constantinople taken by Mahomet II.	LuckY *REALM,	1453

## EIGHTEENTH GRAND DIVISION OF TIME.

From the Taking of Constantinople to the Edict of Nantes.

REFORMATION.—*Trial, 145.*

58	Battle of St. Albans.	LiVely WATER LILLY,	1455
59	Corinth taken by the Turks.	LiBerty TRUE LOVE,	1458
60	Engraving on copper invented.	CHosen TRAGEDY,	1461
61	Accession of Louis XI.	SHoT *WRETCHED,	1461
62	Marriage of Ferdinand the Catholic, and Isabella.	SHiNing AUTHORSHIP,	1469
63	Battle of Tewksbury, Edward IV. defeated his enemies.	GeM TARGET,	1471
64	Charles, of Burgundy, killed.	CHeeRless TEAR QUICK,	1477
65	The inquisition established at Seville.	SHaLlow *REVISE,	1480
66	Slave trade began by the Portuguese.	JudGe TRUE VINE,	1482
67	Battle of Bosworth, Henry VII. defeated Richard III.	CHaK TRIFLE,	1485



- 68 Cape of Good Hope discovered by Bartholomew Diaz. SHiVered \*REFUGE, 1486
- 69 Pope Innocent VIII., and Lorenzo de Medici die. CHeaP TURBAN, 1492
- 70 Conquest of Grenada, and expulsion of the Jews from Spain. CoStly TURBAN, 1492
- 71 First voyage of Columbus for discovery. QuiET TRIBUNE, 1492
- 72 Expedition of Charles VIII. to Naples. CuNning TRIBUNAL, 1495
- 73 The Cabots first discover North America. CoMmon TROPIC, 1467
- 74 Columbus sent to Spain in chains. CURIOUS TALL ICE HOUSE, 1500
- 75 Discovery of Brazil, and birth of Charles V. CLOthes TALL ICE HOUSE, 1500
- 76 Death of Alexander I. from poison prepared for another. KitCHen TALL SUM, 1503
- 77 League of Cambray. QuicK TALL SEIVE, 1508
- 78 An earthquake at Constantinople, Sept. 14th. QuiVering TALL SEA BOY, 1509
- 79 Conquest of Cuba by the Spaniards. CaPacious DELIGHTED, 1511
- 80 Battle of Ravenna, gained by Gaston de Foix. FuZzy WITHHOLDEN, 1512
- 81 Florida discovered by Ponce de Leon. FooT WITHHOLDEN, 1512
- 82 Selim I. poisoned his father Bajazet II. FiNe WITHHOLDEN, 1512
- 83 Battle of Flodden Field, James IV. slain. Famed STILL TIME, 1513
- 84 Accession of Christian II., who married Isabella, sister of Charles V. FaiR STILL TIME, 1513
- 85 Balboa discovered the South Sea. FooLish DULL TIME, 1513
- 86 Accession of Francis I. FaSHionable Do LITTLE, 1515
- 87 Battle of Marignan, Francis I. defeated the Swiss. ViGorous Do LITTLE, 1515
- 88 Holy League in France. ViVid IDEAL DISH, 1516
- 89 Death of Ferdinand, and accession of Charles V. VaPorous DAILY DISH, 1516
- 90 The Reformation of Luther. PaSsable TALL TALK, 1517
- 91 Slaves introduced into America. BeauTiful TALL TALK, 1517
- 92 Invention of gunlocks. BeNdingTALL TALK, 1517
- 93 Discovery of Mexico. BeMoaning TALL THIEF, 1518
- 94 Cortez invaded Mexico. BRight IDEAL TYPE, 1519
- 95 Voyage round the world commenced. BLunt IDEAL TYPE, 1519
- 96 Charles V. emperor. PatCHed IDEAL TYPE, 1519
- 97 The massacre of the Swedish nobility. BeGging IDLENESS, 1520
- 98 Death of Montezuma. BeFitting IDLENESS, 1520
- 99 Meeting of Henry VIII. and Francis I. PoPpy IDLENESS, 1520
- 100 Introduction of Chocolate into England. DeCiSive IDLENESS, 1520

## EIGHTH SERIES.

- 1 The Turks capture Belgrade. HEADLAND, 1521
- 2 Siege of Rhodes by 200,000 men. New TALL NUN, 1522
- 3 Accession of Gustavus Vasa, the historian. Modern DULL NAME, 1523
- 4 Discovery of New Holland by the Portuguese. Rich OUTLAW ONLY, 1525
- 5 Battle of Pavia, Francis I. taken prisoner by Charles V. Long DULL KNEEL, 1525
- 6 Institution of the Capuchin order. CHief OUTLAW ONLY, 1525
- 7 Introduction of Turkies into England. CURious \*LEAN OWL, 1525
- 8 Lutheranism established in Denmark. Fine TALL NOTCH, 1526
- 9 New Guinea discovered by Savedra, a Spaniard. Bold TALL NAG, 1527
- 10 Vienna besieged by the Turks. DoZing IDLE NAP, 1529
- 11 The Reformers acquired the name of Protestant. TiDy ITALIAN HOPE, 1529



- 12 First voyage to Guinea for elephant's teeth as an ivory. TiNy IDLE MESS, 1630  
 13 The confession of Augsburg. TaMe IDLE MESS, 1630  
 14 Henry VIII. divorced Catherine and married Anne Boleyn. DaRing DULL MUMMY, 1533  
 15 Reformation of Henry VIII. in England. TaLi DULL HAMMER, 1534  
 16 Accession of Christian III. DaSHy TALL MAYOR, 1534  
 17 Cartier visited Canada. DeCorated TALL MAYOR, 1534  
 18 Cortez discovered California. TouGH DULL MEAL, 1535  
 19 Anabaptist war in Germany. DeBased IDEAL HOMILY, 1535  
 20 Execution of Anne Boleyn. NiCe OUTLAW MATCH, 1536  
 21 First suppression of monasteries in England. NoTed IDOL IMAGE, 1536  
 22 Chili discovered by Diego de Almagro. kNowN STILL MOHAWK, 1537  
 23 Invention of lotteries. NaMeless IDLE MOVE, 1538  
 24 Expedition of De Soto to Florida. NaRrow IDEAL MAP, 1539  
 25 Ignatius Loyola founded the order of Jesuits. NuLi IDLE RUSE, 1640  
 26 First English vessel sailed to China. New SHaped DULL ROUTE, 1540  
 27 River Mississippi discovered. NaKed STILL RATE, 1541  
 28 Cartier built a fort at Quebec. NoVel STILL RATE, 1541  
 29 Assassination of Pizarro. NoBle STILL RATE, 1541  
 30 Japan discovered by the Portuguese. AmaZing \*LEARN, 1542  
 31 Death of Hernando de Soto. MeT DAILY RUIN, 1542  
 32 Mary Stewart born. MeaN \*LEARN, 1542  
 33 Catherine Howard beheaded. MiMic DULL RUIN, 1542  
 34 Peace of Crespi, the French gave up Italy. MaRble DULY ROAR, 1544  
 35 Silver mines of Potosi discovered. SMaLi \*LAUREL, 1545  
 36 Massacre of the Vaudois. MuSHy \*LAUREL, 1545  
 37 Council of Trent. MocK IDLE RULE, 1545  
 38 Doctrines of Socinius promulgated. MoVing IDLE RUSH, 1546  
 39 Henry VIII. and Francis I. died. MaPle TALL RAKE, 1547  
 40 Cortez, the conquerer of Mexico, died. RoSe WOOD LARK, 1547  
 41 Fiesque's conspiracy in Genoa. ReD WOOD LARK, 1547  
 42 Scots defeated by the English at Pinkey. RuNning TALL RAKE, 1547  
 43 Invention of the balance wheel. RoMan TALL ROOF, 1548  
 44 Roberval sailed for Canada with a colony. RaRe TOIL at ROPE, 1549  
 45 The plough introduced into Peru. ReaL \*LAWLESS, 1550  
 46 Era of the English Puritans. WRetCHed LAWLESS, 1551  
 47 Servetus executed for heresy by Council of Geneva. RaGged STILL LAMB, 1553  
 48 Roxalana murdered her stepson Mustapha. RoVing STILL LAMB, 1553  
 49 The Low Countries invaded by the French. RiPe TALL LIAR, 1554  
 50 Mary married Philip II. of Spain. LaZy TALL LIAR, 1554  
 51 John Rogers and others burnt. LiTtle TALL LILY, 1555  
 52 Coligni sent a colony to Brazil. LeaN TALL LILY, 1555  
 53 Corsica ravaged by the Turks. LuMinous DULY ALLEGE, 1556  
 54 Accession of Sebastian at three years of age. LaRge TALL LUCK, 1557  
 55 The French take Calais. LoyaL DULY LAVA, 1558  
 56 Peace of Chateau Cambresis. LaSHed up \*LULLABY, 1559  
 57 The civil wars in France commence by a conspiracy of Amboise. LucKy DELICIOUS, 1560  
 58 John Knox engaged in the Reformation in Scotland. LiVely DELICIOUS, 1560  
 59 Eric, king of Sweden. LiBerty DELICIOUS, 1560  
 60 Coligni planted a colony in Florida. CHoSen THEOLOGIAN, 1562  
 61 First civil war in France, Catholics against Protestants. SHoT THEOLOGIAN, 1562



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|---|----------------------------------|
| 62 The English engage in the slave trade.                           | SHiNing TALL CHAIN, 1562         |
| 63 Michael Angelo and Calvin died.                                  | GeM TALL SHORE, 1564             |
| 64 Shakspeare and Galileo born.                                     | CheeRless TALL SHORE, 1564       |
| 65 Mary, Queen of Scots, married Darnley.                           | SHaLlow IDEAL JEWEL, 1565        |
| 66 The holy league for the extirpation of Protestantism.            | JudGe TALL JUDGE, 1566           |
| 67 Murder of Rizzio.  | CHaLK TALL JUDGE, 1566           |
| 68 The Turks invade Hungary.  | SHiVered TALL JUDGE, 1566        |
| 69 Second Civil war in France, Battle of Dennis.                    | CHeaP *LOGIC, 1567               |
| 70 Murder of Darnley, by Bothwell.                                  | CoStly DULL JOKE, 1567           |
| 71 Mary Stuart takes refuge in England.                             | QuiET TALL SHEAF, 1568           |
| 72 Execution of the Counts Egmont and Horn.                         | CuNning TALL SHEAF, 1567         |
| 73 Battle of Jarnie, the Protestants defeated.                      | CoMmon IDLE CHAH, 1569           |
| 74 Catherine made peace with the Huguenots.                         | CuRious DELICACY, 1570           |
| 75 Massacre of St. Bartholomew.                                     | CLothes TALL GUN, 1572           |
| 76 Sigismond II. died, the last of the Jagellons.                   | KitCHen TALL GUN, 1572           |
| 77 The Duke of Norfolk executed.                                    | QuicK TALL QUEEN, 1572           |
| 78 Remorse and death of Charles II.                                 | QuiVering DULL CHOIR, 1574       |
| 79 The Spaniards beseige Leyden.                                    | CaPacious DULL, 1575             |
| 80 League for the extirpation of the Protestants.                   | FuZzy DULL QUACK, 1577           |
| 81 Republic of Holland formed.                                      | FooT DULL CAB, 1579              |
| 82 Union of Spain and Portugal.                                     | FiNe TALL VASE, 1580             |
| 83 Siberia conquered.   | FaMed STILL FIGHT, 1581          |
| 84 Calendar reformed by Gregory XIII.                               | Fair *LEAVEN, 1582               |
| 85 Prince of Orange murdered.                                       | FooLish DELVER, 1584             |
| 86 Sir Walter Raleigh attempts to colonize Virginia.                | FaSHionable DELIVER, 1584        |
| 87 Davis Straits discovered.  | ViGorous TALL FISH, 1586         |
| 88 Potatoes introduced into England.                                | ViVid *LAVISH, 1586              |
| 89 Raleigh's colony carried to England by Sir Francis Drake.        | VaPorous LAVISH, 1586            |
| 90 Mary Stuart, Queen of Scots, executed.                           | PaSsable DULL FOG, 1587          |
| 91 Destruction of the invincible Armada.                            | BeauTiful OUTLIVE the WAVE, 1588 |
| 92 The Duke of Guise and the Cardinal of Lorraine assassinated.     | BeNding OUTLIVE the WAVE, 1588   |
| 93 The English Mercury, the first newspaper, published.             | BeMoaning OUTLIVE the WAVE, 1588 |
| 94 Henry III. assassinated by Jaques Clement.                       | BRight TALL FOP, 1589            |
| 95 Sigismond III. united Poland and Sweden.                         | BLunt *ALBINO, 1592              |
| 96 Presbyterian church government established by act of Parliament. | PatCHed *ALBINO, 1592            |
| 97 Henry IV. abjured the Protestant religion.                       | BeGging DULL POEM, 1593          |
| 98 The first European child born in North America.                  | BeFitting TULIP GAY, 1597        |
| 99 Edict of Nantes, toleration to Protestants.                      | PoPpy STALE PUFF, 1598           |
| 100 Oliver Cromwell born.   | DeCiSive TALL BABY, 1599         |

## NINTH SERIES.

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|-----------------------------------|-------------------------|
| 1 East India Company formed.      | DUTCH SEAS, 1600        |
| 2 Union of Scotland with England. | New DASHY SON, 1602     |
| 3 The gunpowder plot.             | MoDeRn DUTCH CELL, 1605 |
| 4 The settlement of Jamestown.    | Rich TOYISH SCOW, 1607  |



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|---|--------------------------------|
| 5 Founding of Quebec by Champlain.  | Long DUTCH HOUSEWIFE, 1608     |
| 6 Hudson River discovered.  | CHief SWEDISH SPY, 1609        |
| 7 Henry IV. assassinated by Raveillac.                                      | Curious TOYISH DAYS, 1610      |
| 8 The Moors expelled from Spain.  | FINE DUTCH TOAD, 1611          |
| 9 Accession of Gustavus Adolphus.   | Bold DASHY THOUGHT, 1611       |
| 10 Matthias, emperor of Germany.  | DoZing DUTCH TUNE, 1612        |
| 11 Pocahontas married John Rolfe.   | TiDy DASHY TIME, 1613          |
| 12 New York settled by the Dutch.   | TiNy DUTCH TEAM, 1613          |
| 13 Napier invented logarithms.  | TaMe DASHY DEER, 1614          |
| 14 Last meeting of the States General in France previous to the revolution. | DaRing ADJUTORY, 1614          |
| 15 Fort Orange built, (in the State of New York.)                           | TaLi DUTCH TOOL, 1615          |
| 16 Concini, Marshal d' Ancre assassinated.                                  | DutCH WATCH TICK, 1617         |
| 17 Ploughs introduced into Virginia.  | DeCorated THATCHED HIVE, 1618  |
| 18 Thirty years war commenced in Germany.                                   | TouGH THATCHED HIVE, 1618      |
| 19 Discovery of the circulation of the blood, by Harvey.                    | DeBased DISH TUB, 1619         |
| 20 First Colonial Assembly in Virginia.                                     | NiCe WHITISH TYPE, 1619        |
| 21 Negroes introduced into Virginia.  | NoTed DUTCH NOISE, 1620        |
| 22 Girls sent to Virginia, and exchanged for tobacco.                       | KNOWn DASHY NOISE, 1620        |
| 23 Pilgrims landed at Plymouth.   | NaMeless TEACH NEWS, 1620      |
| 24 Whig and Tory parties formed in England.                                 | NaRrow TIE a GIANT, 1621       |
| 25 Dutch cruelties at Amboyna.  | TaLi DUTCH NAME, 1623          |
| 26 The first colony settled in New Hampshire.                               | New SHape DODGE an ENEMY, 1623 |
| 27 The first English settlement in the West Indies.                         | NaKed DUTCH NAIL, 1625         |
| 28 A pestilence in England.   | NoVel DUTCH NAIL, 1625         |
| 29 Delaware settled by Swedes and Fins.                                     | NoBle DASHY NAG, 1627          |
| 30 Maine settled by the English.  | MaSs DUTCH MESS, 1630          |
| 31 Boston settled.  | MeT DUTCH MICE, 1630           |
| 32 Gustavus Adolphus gained the battle of Leipsic.                          | MeaN DIE ASHAMED, 1631         |
| 33 The battle of Lutzen in which Gustavus Adolphus died.                    | MiMic DUTCHMAN, 1632           |
| 34 Accession of Christiana.   | MaRble DUTCH WOMAN, 1632       |
| 35 Maryland settled by Irish Catholics, under Lord Baltimore.               | SMall DUTCH MAYOR, 1634        |
| 36 Connecticut settled by the English Puritans.                             | MiSSionary *ISHMAEL, 1635      |
| 37 Rhode Island settled by Roger Williams.                                  | MOCK DUTCH HOMAGE, 1636        |
| 38 The Pequod Indians subdued.  | MoVing TOYISH MUG, 1637        |
| 39 Harvard University founded.  | MaPle DUTCH MUFF, 1638         |
| 40 New Haven settled.   | RoSe *SHOW MAP, 1639           |
| 41 Revolution in Portugal.  | RuDdy TEACH a HERESY, 1640     |
| 42 The Long Parliament convened.  | RuNning *SHARES, 1640          |
| 43 Montreal founded—the Jesuits go to convert the Indians.                  | RoMans TEACH HERESY, 1640      |
| 44 Sugar cane planted in the West Indies.                                   | RaRe STAGE ROAD, 1641          |
| 45 Coffee introduced into England.  | ReaL *CHARITY, 1641            |
| 46 Strafford beheaded.  | WRetCHed *CHARITY, 1641        |
| 47 Rebellion in Ireland.  | RaGged *CHARITY, 1641          |
| 48 Civil War in England.  | RoVing *SHRINE, 1642           |
| 49 Sir Isaac Newton born and Galileo died.                                  | RiPe *SHRINE, 1642             |
| 50 Union of the four New England colonies.                                  | LaZy DUTCH ROOM, 1643          |
| 51 Episcopacy abolished in the Commons.                                     | LiTtle *GERM, 1643             |
| 52 Battle of Marston Moor.  | LeaN *CHARM, 1643              |
| 53 Battle of Naseby and the Canadian war.                                   | LuMinous *DUTCH ROLL, 1645     |
| 54 Charles I. delivered up by the Scots.                                    | LaRge *SHARK, 1647             |
| 55 The Cossack War in Poland.   | LoyaL DISH RAG, 1647           |



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| 56 Treaty of Westphalia.   | LaSHed *SHERIFF, 1648       |
| 57 Charles I. of England beheaded.                                     | LucKy *SHARP, 1649          |
| 58 Montrose executed.  | LiVely *JOYLESS, 1650       |
| 59 Cape of Good Hope settled by a Dutch colony.                        | LiBerty *JEALOUS, 1650      |
| 60 North Carolina settled.   | CHoSen *JEALOUS, 1650       |
| 61 Battle of Worcester—Cromwell defeats the Scots.                     | SHoT *SHIELD, 1651          |
| 62 War between England and Holland.                                    | SHiNing DUTCH LION, 1652    |
| 63 The long Parliament dissolved.                                      | GeM *JOLLY HOME, 1653       |
| 64 Christiana abdicated the throne of Sweden.                          | CHeeRless *JEWELRY, 1654    |
| 65 Conquest of Jamaica.  | SHaLlow DUTCH LILY, 1655    |
| 66 Quakers persecuted in Massachusetts.                                | JudGe DUTCH EULOGY, 1656    |
| 67 Charles X. conquered John Casimir of Poland.                        | CHaIK *SHELF, 1658          |
| 68 Death of Oliver Cromwell.   | SHiVered *SHELF, 1658       |
| 69 Pickering defeats the Spaniards and takes Dunkirk.                  | CHeaP *SHELF, 1658          |
| 70 The peace of the Pyrennes.  | CoStly DUTCH SOAP, 1659     |
| 71 The king of Denmark declared absolute and his throne hereditary.    | QuiET DUTCH CHEESE, 1660    |
| 72 New York taken from the Dutch.                                      | CuNning DUTCH CHAIR, 1664   |
| 73 Great Plague in London—nearly 100,000 victims.                      | CoMmon DUTCH JEWEL, 1665    |
| 74 Great fire in London—13,000 buildings consumed.                     | CuRious DUTCH JUDGE, 1666   |
| 75 Peace of Breda.   | CLothed DUTCH JOKE, 1667    |
| 76 Peace of Aix la Chapelle.   | KitCHen DUTCH JOKE, 1667    |
| 77 Battle of Solbay.   | QuicK DUTCH QUEEN, 1672     |
| 78 The two De Witts murdered by their countrymen.                      | QuiVering *CHICKEN, 1672    |
| 79 King Philip's War in New England.                                   | CaPacious *CHUCKLE, 1675    |
| 80 Rebellion of Bacon in Virginia.                                     | FuZzy DUTCH COACH, 1676     |
| 81 Episcopacy established in Scotland.                                 | FooT DUTCH COPY, 1679       |
| 82 William Penn settled Pennsylvania.                                  | FiNe DUTCH VANE, 1682       |
| 83 Lord Russell and Algernon Sidney put to death.                      | FaMed DUTCH FAME, 1683      |
| 84 Sobieski defeated the Turks.  | FaiR DUTCH FAME, 1683       |
| 85 James II. sent Sir E. Andros to be governor-general in New England. | FooLish *WISHFUL, 1685      |
| 86 Edict of Nantes revoked.  | FaSHionable *WISHFUL, 1685  |
| 87 Newtonian philosophy promulgated.                                   | ViGorous TEACH a FISH, 1686 |
| 88 The Revolution—the people deny the divine right of kings.           | ViVid *CHIEF FOE, 1688      |
| 89 Accession of William and Mary.                                      | VaPorous *CHIEF FOE, 1688   |
| 90 Peter the Great, Czar of Russia.                                    | PaSsable DUTCH FOP, 1689    |
| 91 Schenectady burnt by the Indians.                                   | BeauTiful *SHIPS, 1690      |
| 92 The battle of Boyne, in which the Irish were defeated.              | BeNding *SHIPS, 1690        |
| 93 The French fleet defeated the English.                              | BeMoaning CHEAP DIE, 1691   |
| 94 The battle of La Hogue—the English victorious.                      | BRight DUTCH PIN, 1692      |
| 95 Salem Witchcraft.   | BLunt DISH PAN, 1692        |
| 96 Earthquake in Sicily—100,000 persons destroyed.                     | PatCHed DUTCH POEM, 1693    |
| 97 Massacre of Glencoe, in Scotland.                                   | BeGging DUTCH POEM, 1693    |
| 98 Rice introduced into South Carolina from Africa.                    | BeComing TEACHABLE, 1695    |
| 99 The peace of Ryswick.   | PoPpy DUTCH PEAK, 1697      |
| 100 Peter the Great, engaged in ship building.                         | DeCiSive DUTCH PEAK, 1697   |



## TENTH SERIES.

## NINETEENTH GRAND DIVISION OF TIME.

From the Edict of Nantes to the Death of Charles the XII.

ENGLISH COMMONWEALTH.—*Tones*, 120.

- |  |                                |
|--|--------------------------------|
| 1 Augustus II. king of Poland.                         | DUTCH BOOK, 1697               |
| 2 Accession of Charles III., of Sweden.                | NEW ADAGE BOOK, 1697           |
| 3 Piracies of Kid.                                     | MODERN DUTCH BEEHIVE, 1698     |
| 4 Louisiana settled.                                   | RICH DUTCH PIPE, 1699          |
| 5 Battle of Narva, Peter the Great defeated.           | LONG TAXES, 1700               |
| 6 The act of succession in Great Britain.              | CHIEF TAXES, 1700              |
| 7 Prussia became a kingdom.                            | CURIOUS TEXT, 1701             |
| 8 Yale College founded at New Haven, Conn.             | FINE TEXT, 1701                |
| 9 The charter of Philadelphia granted.                 | BOLD TOCSIN, 1702              |
| 10 Gibraltar taken by the English.                     | DOZING WHITE CHASM, 1703       |
| 11 The first newspaper printed in North America.       | TIDY TALK WISER, 1704          |
| 12 Accession of Joseph I. to Germany.                  | SING THICK SOLE, 1705          |
| 13 Invasion of Carolina by the Spaniards.              | TAME THICK SEIGE, 1706         |
| 14 The English attempt to take Port Royal.             | DARING TAX GO, 1707            |
| 15 Battle of Ondenarde.                                | TALL THICK SEIVE, 1708         |
| 16 The first printing press in Connecticut.            | DUTCH TAX PAY, 1709            |
| 17 The first post office in the colonies, at New York. | DECORATED ADEQUATE HOUSE, 1710 |
| 18 Expedition against Canada.                          | TOUGH THICK HEADED, 1711       |
| 19 The Indians massacred 137 whites in North Carolina. | DEBASED THICK TONE, 1712       |
| 20 The ruins of Herculaneum discovered.                | NICE DOG THEM, 1713            |
| 21 The treaty of Utrecht.                              | NOTED DECOY THEM, 1713         |
| 22 The first schooner built at Cape Ann.               | KNOWN DOCTOR, 1714             |
| 23 Rebellion in Scotland.                              | NAMELESS ADEQUATELY, 1715      |
| 24 Mississippi settled by the French.                  | NARROWED COTTAGE, 1716         |
| 25 New Orleans founded.                                | NULL THICK TACK, 1717          |
| 26 Death of Charles XII. of Sweden.                    | NEW SHAPED DUCK THIEF, 1718    |

## TWENTIETH GRAND DIVISION OF TIME.

From the Death of Charles XII. to the Death of General Jackson.

REVOLUTIONS.—*Heading a foe*, 128.

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|---|---------------------------|
| 27 Death of William Penn and Benjamin Church.                   | NAKED ADEQUATE VIEW, 1718 |
| 28 Israel Putnam born.  | NOVEL ADEQUATE VIEW, 1718 |
| 29 The first Presbyterian Church in the United States.          | NOBLE and DUG DEEP, 1719  |
| 30 The aurora borealis first noticed in New England.            | AMAZING DUG DEEP, 1719    |
| 31 Tea begun to be used in New England.                         | METALLIC THICKNESS, 1720  |
| 32 Inoculation first tried on criminals.                        | MEAT THICK NOD, 1721      |
| 33 The first newspaper printed at New York by William Bradford. | MIMIC *KEENLY, 1725       |
| 34 Aberration of the fixed stars discovered by Dr. Bradley.     | MARBLE THICK NOOK, 1727   |
| 35 The Natchez Indians massacre the French.                     | SMALL TALK of a NAP, 1729 |



36 The fort at Crown Point erected.	MuSHY DIKE <i>in the</i> MUD, 1631
37 George Washington, and Richard Henry Lee born.	MoCK TACK MAN, 1732
38 Georgia settled by James Oglethorpe.	MoVing BIG MUMMY, 1733
39 War between France and England.	MaPle DOG ROAR, 1744
40 Treaty of Aix la Chapelle.	RoSy THICK ROAR, 1748
41 New style adopted—Franklin's experiment with a kite.	ReD THICK LION, 1752
42 The great earthquake at Lisbon.	RuNning *WEAK <i>and</i> LOWLY, 1755
43 Braddock's defeat.	Roman *Weak <i>and</i> LOWLY, 1755
44 The seven year's war began.	RaRe *CLASH, 1756
45 End of the "old French war."	ReaL STOIC CHARM, 1753
46 Stamp act passed.	WretCHed THICK SHAWL, 1765
47 Dartmouth college founded.	RaGged STORE CHAP, 1760
48 Lightning rods invented.	RoVing THICK OX, 1770
49 The first partition of Poland.	RiPe *COCKNEY, 1772
50 Battle of Bunker Hill.	LaZy *QUICKLY, 1775
51 Declaration of Independence.	LiTTle THICK COACH, 1776
52 Henry Clay born—Burgoyne surrendered.	LeaN THICK CAKE, 1777
53 The treason of Arnold.	LuMinous DOG FACE, 1780
54 Independence of the United States.	LaRge *ECHO of FAME, 1783
55 Federal Constitution adopted by the States.	LoyaL THICK FOG, 1787
56 The States General of France meet.	LaSHed THICK BEEF, 1798
67 Discovery of Galvanism.	LucKy *COPIED, 1791
58 First railroad in England.	Lively *COPIED, 1791
59 The reign of terror in France.	LiBerty THICK POEM, 1793
60 Vaccination introduced by Dr. Jenner.	CHoSen *COW BEEF, 1798
61 General Washington died, aged 67.	ShoT CAP A PIE, 1799
62 Union of England and Ireland.	ShiNing ADVISED, 1801
63 Purchase of Louisiana.	GeM TOUGH SUM, 1803
64 Napoleon crowned emperor of France.	CHeeRless *OFFICER, 1804
65 Alexander Hamilton killed by Aaron Burr.	SHaLlow ADVISER, 1804
66 Battle of Austerlitz and Trafalgar.	JudGe VESSEL, 1805
67 Battle of Jena.	ChalK TOUGH SEIGE, 1806
68 Joseph Bonaparte, King of Naples.	SHiVered TOUGH SIZE, 1806
69 Battle of Friedland and Treaty of Tilsit.	CHeaP *PHYSIC, 1807
70 Aaron Burr tried for conspiracy.	CoStly *PHYSIC, 1807
71 King of Portugal emigrated to Brazil.	QuieT *PHYSIC, 1807
72 Napoleon married Maria Louisa.	CuNning *FATES, 1810
73 Holland annexed to France.	CoMmon *FATES, 1810
74 Revolution in Caraccas.	CuRious *FATES, 1810
75 Burning of the Richmond Theatre.	CLothes DEFEATED, 1811
76 Campaign in Russia.	KitCHen *FATTEN, 1812
77 United States declared war against Great Britain.	QuicK *FATTEN, 1812
78 Battles of Lutzen and Leipsic.	QuiVering *FATHOM, 1813
79 Napoleon banished to Elba.	CaPacious DIVIDER, 1814
80 British took Washington, and burnt the public buildings.	FuZzy DIVIDER, 1814
81 Battles of New Orleans and Waterloo.	FooT DEVOUTLY, 1815
82 American Colonization Society.	FiNe TOUGH DISH, 1816
83 The Holy Alliance and Congress of Sovereigns.	FaMed DIVIDE OFF, 1818
84 The first steam ship crossed the Atlantic.	FaiR *WAVY DEEP, 1819
85 Spain ceded Florida to the United States.	FooLish *WAVY DEEP, 1819
86 Revolution in Spain.	FaSHionable DIVINES, 1820
87 Death of Napoleon at St. Helena.	ViGorous DIVINE DIE, 1821
88 Death of John Adams and Thomas Jefferson.	ViVid TOUGH NOTCH, 1826



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| 89 Catholic Relief Bill passed the British House of Commons. | VaPorous STIFF NAP, 1829  |
| 90 Duke of Orleans becomes King of the French.               | PaSsable STIFF MUSS, 1830 |
| 91 The Reform Bill passes the British Parliament.            | BeauTiful DEAF MAN, 1832  |
| 92 Slavery abolished in the British Colonies.                | BeNding STIFF MUMMY, 1833 |
| 93 The Florida War begun.                                    | BeMoaning *FAMILY, 1835   |
| 94 Texas declared its independence.                          | Bright *FAMISH, 1836      |
| 95 Railroad from Manchester to Liverpool opened July 4.      | BLunt 'TOUGH MAKE, 1837   |
| 96 Napoleon re-interred in Paris.                            | PatCHed DIVORCE, 1840     |
| 97 Contest for the extension of suffrage in Rhode Island.    | BeGging TOUGH RIOT, 1841  |
| 98 T. W. Dorr elected Governor of Rhode Island.              | BeFitting TAVERN, 1842    |
| 99 The Free Church of Scotland.                              | PoPpy DEFORM, 1843        |
| 100 The Philadelphia Riots.                                  | DeCiSive DEVOURER, 1844   |

N. B. The learner will notice the want of adaptation in the adjective to many of the indicating words. Many of them could be made to read more smoothly, and convey a better and more common meaning, if the termination of the adjective were changed. In the 75th number of the Eighth Series, for example, for the *order* and *date* of the Massacre of St. Bartholomew, we have the adjective which belongs to the 75th symbol, *Clothes* (Basket,) joined to the indicating words, *Tall gun*; thus:—CLOthes TALL GUN,—which is wanting in *meaning*, and would be regarded as an incongruity; but let the pupil, as he memorizes this and all similar cases, so change the adjective as to give it meaning, which he can do by changing the termination of the adjective, and making it read, *Clothed TALL GUN*.



## SOVEREIGNS OF ENGLAND.

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To study the history of a monarchy is to study the biography of its SOVEREIGNS.

In the application of this system the following thirteen questions can be answered on each Sovereign.

1. Who is the Sovereign answering to any given number which points out the numerical order, as arranged on the left? This is determined by calling to mind the adjective found in the same sentence with his name.

2. Which Sovereign may he be of the same name? Example:—Of the Henries there are eight. If I ask for the 40th Sovereign, my 40th adjective is ROSY. I am to ask what name is my 40th adjective associated with in a sentence, I find it to be Henry. But which Henry? If I find my first adjective associated with a second one, the second adjective is to denote which Sovereign of that name. Thus: ROSY and FINE Henry. The first adjectives points out the numerical order of the Sovereign, and the other the given Sovereign of that name. The 40th Sovereign is the 8th Henry.

3. When did he ascend the throne?
4. How long did he reign?
5. In what year did he vacate the throne?
6. To what dynasty did he belong?
7. Who was his predecessor?
8. Who was his successor?
9. In what year did his dynasty begin?
10. In what year did it end?
11. How many Sovereigns were members of his dynasty?
12. How many dynasties were there, and what were their names?
13. If any given Sovereign be named, what is his order in the whole nomenclature? Making in all 728 questions which the pupil can answer from the following arrangement, thus:—

ROSY and FINE Henry was a *hatless boy* on a *muggy eve*.

He came to the throne 1509, reigned 37 years, and by adding the 37 to 1509, we get the answer to the question, What year did he vacate the throne? To what dynasty did he belong? 8th.

METHOD.—*Hatless boy* on a *muggy eve* = 1509—37—8.



## FIRST DYNASTY.

## OLD SAXON KINGS.

1 Stout EGBERT.	<i>Fuzzy or semi-foe.</i>	800	*38
2 New ETHELWOLF.	<i>Heavy muff and tip.</i>	838	19
3 Modern ETHELBALD.	<i>Awful comb.</i>	857	3
4 Rich ETHELBERT.	<i>Vicious witch.</i>	860	6
5 Long and <i>Stout</i> ETHELRED.	<i>Savage judge.</i>	866	6
6 Chief ALFRED the Great.	<i>Heavy cane enough.</i>	872	28
7 Curious EDWARD the Elder.	<i>Busy snail.</i>	900	25
8 Fine ATHELSTAN.	<i>Openly and hotly.</i>	925	15
9 Bold and <i>Stout</i> EDMOND.	<i>Hebrew Sage.</i>	940	06
10 Dozing EDRED.	<i>Peerage as pay.</i>	946	09
11 Tidy EDWIN.	<i>Ball lower.</i>	955	04
12 Tiny EDGAR the Pacific.	<i>Pulpit with Joy.</i>	959	16
13 Tame EDWARD the Martyr.	<i>Big and holy hero.</i>	975	04
14 Daring and <i>New</i> ETHELRED.	<i>Big bay mug.</i>	979	37
15 Tall and <i>New</i> EDMOND.	<i>Odious audacious idea.</i>	1015	01

\* The last two figures denote the years each of the first dynasty occupied the throne. The first fifteen sovereigns are assigned to the first dynasty.

## SECOND DYNASTY.

## DANISH KINGS.

16 Dutch CANUTE the Great.	<i>Ties a duck to a hot pan.</i>	1017	19†2
17 Thick and <i>Stout</i> HAROLD.	<i>Does much for money.</i>	1036	03 2
18 Tough HARDICANUTE.	<i>Ties a map to a nun.</i>	1039	02 2

† The last figure denotes the dynasty to which each remaining sovereign belongs.

## THIRD DYNASTY.

## NEW SAXON KINGS.

19 Debased EDWARD the Confessor.	<i>Desired no harm.</i>	1041	24 3
20 Nice and <i>New</i> HAROLD.	<i>Dies in a jolly time.</i>	1065	01 3

## FOURTH DYNASTY.

## NORMAN KINGS.

21 Noted and <i>Stout</i> WILLIAM } the Conqueror.	} <i>Witty and sage gentry.</i>	1066	21 4
22 Know and <i>New</i> WILLIAM } Rufus.			
23 Numb and <i>Stout</i> HENRY.	<i>Dates of some lyre.</i>	1100	35 4
24 Norman STEPHEN.	<i>Tight meal dipper.</i>	1135	19 4



FIFTH DYNASTY.

PLANTAGENET KINGS.

25	Null and <i>New</i> HENRY.	<i>Stately row in a homely hall.</i>	1154	35	5
26	New shaped and <i>Stout</i> } RICHARD the Lion.	<i>Tight heavy boot sole.</i>	1189	10	5
27	Naked JOHN.	<i>Stout boy bought a quill.</i>	1199	17	5
28	Novel and <i>Modern</i> HENRY.	<i>Dandy shawl in jail.</i>	1216	56	5
29	Noble and <i>Stout</i> EDWARD.	<i>Tin gun on a mole hill.</i>	1272	35	5
30	Miserly and <i>New</i> EDWARD.	<i>Sweet music to a low soul.</i>	1327	20	5
31	Mighty and <i>Modern</i> } EDWARD.	<i>Demoniacal soul.</i>	1327	50	5
32	Mean and <i>New</i> RICHARD.	<i>Dame cook knowingly.</i>	1377	22	5

SIXTH DYNASTY.

LANCASTER BRANCH.

33	Mimic and <i>Rich</i> HENRY.	<i>Dumpy boy from damage.</i>	1399	13	6
34	Marble and <i>Long</i> HENRY.	<i>Tardy notes of joy.</i>	1412	10	6
35	Small and <i>Chief</i> HENRY.	<i>Die with the renown of a } miffy Jew.</i>	1422	38	6

SEVENTH DYNASTY.

YORK BRANCH.

36	Missionary and <i>Rich</i> EDWARD.	<i>Dare choose a new mug.</i>	1460	23	7
37	Mock and <i>Long</i> EDWARD.	<i>Drive in a mossy sack.</i>	1483	00	7
38	Moving and <i>Modern</i> RICHARD.	<i>Dear fame of a snake.</i>	1483	02	7

EIGHTH DYNASTY.

TUDOR BRANCH.

39	Maple and <i>Curious</i> HENRY.	<i>Dry fallen roof.</i>	1485	24	8
40	Rosy and <i>Fine</i> HENRY.	<i>Hatless boy in a muggy eve.</i>	1509	37	8
41	Red and <i>Chief</i> EDWARD.	<i>Tall and rash calf.</i>	1546	07	8
42	Ruinous MARY.	<i>Dull, lame, and silly wife.</i>	1553	05	8
43	Roman ELIZABETH.	<i>Dull lava a rare view.</i>	1558	44	8

NINTH DYNASTY.

STUART BRANCH.

44	Rare and <i>Stout</i> JAMES.	<i>Tie on a chosen new map.</i>	1602	23	9
45	Real and <i>Stout</i> CHARLES.	<i>Teach a new lean mob.</i>	1625	23	9
46	Wretched CROMWELL.	<i>Dutch roof at noon for pay.</i>	1648	12	9
47	Ragged and <i>New</i> } CHARLES.	<i>Dashy, joyous and unholy } boy.</i>	1660	25	9
48	Roving and <i>New</i> JAMES.	<i>Dish full of samp.</i>	1685	03	9



## TENTH DYNASTY.

## NASSAU ORANGE BRANCH.

- |                           |   |                                     |      |    |    |
|---------------------------|---|-------------------------------------|------|----|----|
| 49 Ripe and <i>Modern</i> | } | <i>Dodge off as a fighter does.</i> | 1688 | 14 | 10 |
| WILLIAM.                  |   |                                     |      |    |    |
| 50 Lazy ANNE.             |   | <i>Take the sound of the notes.</i> | 1702 | 12 | 10 |

## ELEVENTH DYNASTY.

## BRUNSWICK HANOVER.

- |                                    |   |                                     |      |    |    |
|------------------------------------|---|-------------------------------------|------|----|----|
| 51 Little and <i>Stout</i> GEORGE. |   | <i>Doctor at the time of death.</i> | 1714 | 13 | 11 |
| 52 Lean and <i>New</i> GEORGE.     | } | <i>Take a nag home at mid day.</i>  | 1727 | 33 | 11 |
| 53 Luminous and <i>Modern</i>      |   |                                     |      |    |    |
| GEORGE.                            | } | <i>Dutch chase with shoes tied.</i> | 1760 | 60 | 11 |
| 54 Large and <i>Rich</i> GEORGE.   |   |                                     |      |    |    |
| 55 Lowly and <i>Rich</i> WILLIAM.  |   | <i>Divinest statue.</i>             | 1820 | 10 | 11 |
| 56 Leisurely VICTORIA.             |   | <i>Defy the mask with thought.</i>  | 1830 | 07 | 11 |
|                                    |   | <i>Tough May kite day.</i>          | 1837 |    | 11 |



## GEOGRAPHY.

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IN reducing this study to a science, and in placing it within the comprehension of pupils recourse was had to as much *imagination* as is ever demanded in the construction of our mnemonic rules. The parallels of latitude and longitude, the equator, the arctic and antarctic circles, and the tropical lines, the poles, and the axis, are all imaginary lines. With the aid furnished in this way we are enabled to form very correct notions respecting the relative positions of the different parts of the earth.

If therefore, the student of geography has already derived so much assistance from mnemonic or imaginary lines, he should not hesitate to derive further aid from the same source.

In applying mnemonic rules to geography the subject will be considered under the following heads:

First,—Principles.

Second,—General Geography.

Third,—Particular Geography.

Fourth,—Statistical Geography.

### PRINCIPLES.

We will first provide ourselves with two rooms, one directly over the other. The pupil will, in imagination, place himself in the centre of the floor of the upper room. Each room should be divided into four walls of equal dimensions; but the walls, instead of forming a cornice with a ceiling, should terminate in a focus, like a dome. When the pupil has the upper room clearly formed in his mind, he has the exact plan of the lower room. The floor on which he stands, is the *Equator*, and the terminus of the two domes or rooms, above and below him, answer to the north and south poles. The pupil will now have a post extend from where he stands in the centre of the floor, to the top of the dome, so down through to the centre of the southern dome below him. This post, now extending from pole to pole, forms the *axis*—(like extending a wire through an orange.) Thus, the *equator*, (or floor,) extending through the earth one way, and the *axes*, (or *posts*) the other way, the earth, (our geographical rooms,) is divided into four equal parts—into an upper and lower room, and into a right and left room—or into a Northern and Southern, and an Eastern and Western Hemisphere.

The pupil still standing in the centre of the floor by his post or *axis*,



and with his face to the north, he will have the first *wall* on his left —(where he should begin to count the walls)—and the second *wall* before him, the third *wall* at his right hand, and the fourth *wall* behind him. On each of these *walls* the pupil will draw eight perpendicular lines, all commencing on the floor, at equal distances of 600 miles, or 10 degrees, but running nearer together, until they meet in the centre of the domes at the *poles*. These are called lines of longitude. The pupil will then draw 8 horizontal lines, beginning 10 degrees, or 600 miles from the equator, or floor, running them at equal distances. When these lines are all laid on, crossing each other at right angles, they form nine apartments, each way, making *eighty-one* PLACES on each wall, making in all 324 places in each room.

The pupil should have a school atlas, or map of the world before him, where he will find the rooms and lines all to compare with our plan, with only this difference; he here has in the two rooms the whole globe, or sphere, spread out on the four walls in one view; on the atlas he has the same arrangement presented to him in halves. (Hemispheres.) A further difference is, on the atlas, the pupil is made to imagine that he is on the outside of the globe, while the two Hemispheres are presented to him like an orange cut in halves lengthwise, which makes it exceedingly difficult for him to *lay the scene* of his study on the outside, while he is actually traversing the inside of one half of it. In our Mnemonic rooms, we place ourselves in the centre of a hollow *transparent* globe, where every imaginary line, and every object on its *surface shows through*, and can be seen, surveyed, and studied on the inside.

Being furnished with two Rooms, all that part of the globe north of the Equator (above the floor) we shall transfer to the walls of the Upper Room, and all south of the Equator to the walls of the Lower Room. We shall therefore call the Northern Hemisphere the *Upper Room*, and the Southern Hemisphere the *Lower Room*. The Equator we call *the Floor*, the lines of longitude *ladders*, and the lines of latitude *steps*, placed on the several *walls*.

Before proceeding further, the meridian must be fixed. This, in English and American maps and charts is reckoned from London, or more correctly from Greenwich, counting the longitude east or west from that place. The French place their meridian in Paris, but they mark also on their maps, longitude from the Faroe islands, (as we do ours from Washington,) from which place all the other European nations, commence theirs. By this means, the longitude which is laid down on a continental map is comprehended by the French, and the French maps are understood by all other continental geographers. Our maps are intelligible only where the English language is studied and spoken.



But in the application of these principles to *general* geography, as a meridian can be reckoned from any point on the equator, we shall place the *meridian* twenty degrees west of Greenwich, which brings it directly on the centre, between the two hemispheres. We make Greenwich then twenty degrees, and the Faroe Islands between ten and fifteen degrees east Longitude. The only point of land which marks our meridian is *Iceland*. But those who are familiar with the map of the world, will find it more convenient to regard the *centre* line between the two hemispheres as our meridian, and place the digit 0 which now marks the meridian at Greenwich, directly in the centre, where 20° now stands.

This arrangement of the *meridian* divides the lines of latitude and longitude equally between the four quarters of the two hemispheres, dividing the world into two equal parts, which brings 180 deg., or one half of the whole circle, on the extreme edge of each hemisphere. Whereas now the meridian at Greenwich being 20 deg. east of the dividing line of the hemispheres, instead of causing half (180 deg.) the circle (360 deg.) to terminate at the extreme edge of the eastern, it carries it 20 deg. from the edge of the western hemisphere, which is not unfrequently a source of much perplexity, especially to the mind of a new student in geography.

Making *Iceland*, or the point on the equator where the globe is divided into two hemispheres, from which we shall reckon longitude, we will suppose a *place* to be in 42 deg. north latitude, and 309 of longitude, (going east) from Iceland in one direction *round* the globe; on what *wall, ladder, step*, and degree, or *square*, (for it will be remembered that *places* made by the ladders and steps occupy ten degrees of latitude and longitude) is this place to be found? The answer is contained in the following

#### METHOD FOR DETERMINING GEOGRAPHICAL LOCALITIES.

We must take the 309, and cut off the unit figure, thus, 30,9, and we have 30 left. There being nine *places* of latitude on each wall, we divide 30 by 9, which will be contained in it three times, with a remainder; But as 30 exceeds 3 times 9, our *place* must be found on the fourth wall. The remainder being 3, determines the *ladder* on the fourth wall. To find the step, we must cut off the unit figure from the degrees of latitude, thus, 4,2, and the 4 determines the step *up* from the equator. Having found the *wall, ladder*, and *step*, we have found the *place* where the city is *located*, and are necessarily within *ten* degrees of it. Let us now approach within one degree, or within one fifth of a degree. This is pointed out by the



unit figures cut off from the degrees of latitude and longitude, 4,2 and 30,9. It is 2 degrees *up* towards the next higher step, and 9 degrees *in* towards the next ladder. Reaching this point, we are on the last degree. To get the miles it can be divided and subdivided into minutes and seconds. But this is not often necessary to serve any practical purpose.

The city, then, which we shall find in 42 N. L., and 109 W. L., is Boston. It is in the upper room, because it is above the floor, or north of the *equator*; It is found on the fourth wall, because its *place* is a higher number than the 27 places on the 3 walls; it is on the third *ladder*, which is determined by the remaining number after dividing 30 by 9; it is on the 4th step, which is determined by the figure left after cutting off the unit figure from (4,2) the degrees of latitude; it is 2 degrees *up*, which is determined by the 2 cut off from the latitude; it is 9 degrees *in* by the 9 cut off from the longitude.

If we were to read that an engagement had taken place between two ships, or that a vessel had been stove in by a whale in 324 deg. east longitude, 36 deg. south latitude, how shall we find the precise location of this event? We know that south latitude is in the lower room. To find the wall, ladder, step, and *tenths* of the *place*, we proceed as in the foregoing example. Cut off the unit figure from the longitude, 32,4; then divide the left hand figures 32 by 9, and 5 is the remainder—5th *ladder*, on the fourth wall, and 3,6, third step, counting *down* from the equator, and 3 *tenths* of longitude *in* to the *place*, and 6 *tenths* of latitude. This event therefore took place near the mouth of the Rio de la Plata on the fourth wall, fifth ladder, and third step of the southern room.

RULE,

*For finding the Longitude of a place, from Iceland, or the centre of the Hemispheres, when its Longitude from Greenwich is known.*

If the place be east of Greenwich, add 20 deg. If it be west of Greenwich, drop 20 deg. If the place be less than 20 deg. east of Iceland, as in the case of Madrid and Edinburg, which are 3 deg. west of Greenwich, this arrangement brings them into 17 deg. east longitude.

RULE,

*To find the Longitude of a place on the Sphere, when its Longitude is known on the Western Hemisphere, from Greenwich and from Iceland.*

New York is 40 deg. N. L. and 74 deg. W. L. from Greenwich, and 54 from Iceland. Now subtract 74 deg. from 360 deg., (the circle of the earth,) and it gives the longitude of New York, 286 deg.,



as you go east from Greenwich round the globe. By the same rule, if 54, (the longitude of New York west from Iceland), be subtracted from 360 deg. it gives 306, deg. of longitude.

By studying these rules the pupil will not only familiarize the figure of the earth, but will be able to determine from an *indicating word* three longitudes for every place on the western hemisphere, and two longitudes for every place on the eastern hemisphere. Example—The indicating words for Boston from Greenwich, are WORN COAT—42 deg. N. L., 71 deg. W. L.,—51 deg W. L. from Iceland, and 309 deg. of longitude round the globe. It is in the upper room, 4th wall, 3d ladder, 3d step, 9 tenths *in* and 2 tenths *up*. The learner should compare every step of his way through these principles with a school atlas.

## GENERAL GEOGRAPHY.

As this section has much more to do with *symbolizing* than with memorizing figures, were it not for taking it out of its proper connection with the subject of Geography, it would be placed in the SECOND PART, where *topics*, rather than figures, are to be remembered. The pupil must make himself familiar with the theory of *locating* the symbols, in order to succeed with this chapter. In doing so, the rooms, places and symbols, found in the Second Part should be familiarized.

What we learn on maps and globes is soon forgotten, there being no connecting medium to bring the different countries to our recollection. Suppose we are looking at a globe, and fix our eyes on England, we cannot see its antipodes; places can be seen only in one direction. The Chinese, when shown a map of the world, said, Why put us up in a corner? we are in the centre. In fact, the centre is everywhere, and the whole circumference is equally distant from us, wherever we may be.

The four quarters of the northern hemisphere being arranged on the 4 *walls* when we are in a room, we can in an instant see every part of the hemisphere. On the *first wall* will be a part of the Atlantic Ocean, the whole of Europe, and a great part of Africa, and a small part of Asia.

On the *second wall* will be found the larger part of Asia, and a large proportion of the North Pacific Ocean.

On the *third wall* there is a continuance of the Northern Pacific Ocean, and a part of North America.



On the *fourth* wall there is the remainder of North America, part of South America, the West Indies, and a great part of the Atlantic Ocean. This completes the northern hemisphere, and occupies the *first*, or upper room.

In the second, or lower room, on the *first* wall, we have a part of the Southern Atlantic Ocean, a part of Africa and the Indian Ocean.

The *second* wall is occupied by the remainder of the Indian Ocean, the Indian Archipelago, and New Holland.

The *third* wall contains the Southern Pacific Ocean, and the South Sea Islands.

The *fourth* wall has nearly all of South America. Thus there are in the Northern room the whole continent of Europe and Asia, the whole of North, and a part of South America. The *lower* or southern room contains the remainder of Africa and South America, the Asiatic Islands, Polynesia and Australia.

If I am in a room where I can stand with my face to the north, the first wall will be on my left. This wall is divided into *places*, by the eight lines of latitude and longitude, crossing each other.

The 1st *place*, made by the 1st *ladder* and 1st *step*, and numbered 11, is covered almost entirely with water, being so much of the Atlantic Ocean. A small part of Africa is however discovered; in this part Sierra Leone and Monrovia are situated.

The 11th symbol is *Tidy Quail*, which we must locate in both these places, by seeing a flock of quails fly up from Sierra Leone, and light down in Monrovia.

The 2d *place* is made by the 1st *ladder* and 2d *step*, and will be numbered 12, the land occupying it is Senegambia and Cape Verd, on which we must see a *Tiny Quack* traveling to heal the sick.

The 3d *place* is numbered 13, and embraces part of the great desert of Sahara, and the Canary Islands, on which the pupil will locate the 13th symbol, *Tame Parrot*. By an ingenious tact of his own mind, the location and the association will become exceedingly impressive.

The 4th *place* embraces the Island of Madeira, on which we must locate the *Daring Lion*.

Place numbered 15 is covered with water. The symbol is *Tall Broom*, and no association is required.

Place 16 takes in a very small portion of Ireland, to be associated with *Dutch Barrel*.

Place 17, is a part of Iceland, on which we are to locate a *Decorated Church*.

Place 18, a part of Greenland. *Tough Jug*.

Place 19, Arctic Ocean. *Tabby Cat*.



The place made by the 2nd ladder and 1st step, will be numbered 21, in which we find a part of Liberia, and the mountains of the Moon, on which we are to locate the *Noted Bear*.

Place 22, Desert of Sahara and Soudan. *Known Bottle*.

Place 23, the Great Desert and a part of Morocco. *Nameless Brush*.

Place 24, Morocco, Straits of Gibraltar, Portugal and Spain. *Narrow Musket*.

Place 25, a part of Spain, Portugal, France and the Bay of Biscay. *Null Horn*.

26. Great Britain and Ireland. *New Shaped Loom*.

27. Shetland and Faroe Islands. *Naked Ladder*.

28 and 29. Arctic Ocean. *Novel Goldfish*.

The place made by 3d ladder and 1st step, numbered 31, embraces the Gulf of Guinea—parts of Guinea—Mountains of the Moon. *Metalic Spoon*.

32. Parts of Soudan and the Great Desert. *Mean Guitar*.

33. The Great Desert of Sahara. *Mimic Wheel*.

34. Parts of the Great Desert, Barbary and the Mediterranean Sea. *Marble Bench*.

35. France. *Small Cloak*.

36. Parts of Prussia, Denmark and the North Sea. *Missionary Man*.

37. Part of Norway. *Mock Diadem*.

38 and 39. Arctic Ocean. *Moving Tumbler*.

41. Part of Guinea and Central Africa. *Red Trumpet*.

42. Part of Central Africa and the Great Desert. *Running Pony*.

43. Great Desert. *Roman Groom*.

44. Island of Sicily. *Rare Spool*.

45. Gulf of Venice—parts of Italy and Austria. *Real Shoe*.

46. Parts of the Baltic Sea, Prussia and Sweden. *Wretched Fence*.

47. Parts of the Baltic Sea, Norway, Sweden, and Arctic Ocean.

*Ragged Net*.

48. Spitzbergen. *Roving Army*.

49. Arctic Ocean. *Ripe Oyster*.

51. Central Africa. *Little Watch*.

52. Parts of Nubia, Central Africa and the Great Desert. *Lean Elephant*.

53. Parts of the Great Desert, Barbary and Egypt. *Luminous Lamp*.

54. Mediterranean Sea, Barbary. *Large Drum*.

55. Part of Turkey and Austria. *Loyal Tour*.

56. Part of Russia—Europe. *Lashed up Coach*.

57. Part of Russia, Sweden and Norway. *Lucky Lark*.

58. Norway—Russia. *Lively Fife*.

59. Arctic Ocean. *Liberty Cap*.



61. Central Africa—Abyssinia. *Shot Eagle.*
62. Nubia—Abyssinia. *Shining Blue-Jay.*
63. Nubia—Egypt—Red Sea—Arabia. *Gem Book.*
64. Turkey—Arabia. *Cheerless Nun.*
65. Black Sea, Turkey, Russia. *Shallow Freedom.*
66. Russia in Europe. *Judge Moor.*
67. Russia—White Sea. *Chalk Pail.*
- 68, 69. Arctic Ocean. *Shivered Calico.*
71. Eastern Africa—Indian Ocean. *Quiet Tomb.*
72. Abyssinia, Red Sea and Arabia. *Cunning Squirrel.*
73. Arabia. *Common Deluge.*
74. Persia—Turkey in Asia. *Queen Mouse.*
- 75, 76, 77. Russia in Europe and Asia. *Clothes Basket.*
- 78, 79. Arctic Ocean. *Quivering Lily.*
81. Indian Ocean—Eastern Africa. *Foot Organ.*
82. Arabia—Indian Ocean. *Fancy Comb.*
73. Persia, Persian Gulf, Arabia. *Famed Mount Tabor.*
84. Persia—Tartary—Caspian Sea. *Fair Jew.*
- 85, 86. Tartary—Russia. *Foolish Peacock.*
87. Russia. *Vigorous Crane.*
88. Nova Zembla. *Vivid Water.*
89. Arctic Ocean. *Vaporous Umbrella.*
- 91, 92. Indian Ocean. *Beautiful Rose.*
93. Indian Ocean—Beloochistan. *Bending Grain.*
94. Affghanistan—Tartary. *Bemoaning Lamb.*
95. Tartary. *Bright Fire.*
96. Tartary—Russia. *Blunt Awl.*
97. Russia. *Patched Rug.*
98. Russia—Nova Zembla. *Begging Widow.*
99. Arctic Ocean. *Befitting Crown.*

Thus we have marked the most prominent features of each of the 81 places on the *first* wall. Should the pupil now proceed in the same manner over the three remaining walls of the northern hemisphere, and associate the principal country, city, sea, or lake, with the symbol that corresponds in number to the place, he will find himself in possession of a very good knowledge of *General Geography*.

In distinction from this mode of studying Geography, we shall next introduce *particular* Geography.



## LATITUDES AND LONGITUDES.

OF SOME OF THE

## PRINCIPAL CITIES AND TOWNS IN THE UNITED STATES.

From all the following indicating words two figures should be assigned to the latitude, they being expressed sometimes by one figure, as for example, Paris; and sometimes with three figures, as Pekin, in China. These indicating words are to be made into a sentence, with the name of the place whose latitude and longitude they indicate.

*The Longitudes are from Greenwich.*

		LAT.	LONG.
1 Albany, Capital N. Y.	RAINY WIGWAM,	N. 42	W. 73
2 Annapolis, Cap. Md.	New HUMBUG SHOW,	39	76
3 Augusta, Ga.	Modern MAIM THE FEET,	33	81
4 Augusta, Cap. Me.	Rich RARE CHAP,	44	69
5 Baltimore, Md.	Long HEMPY CASH,	39	76
6 Bangor, Me.	Chief RARE SHOP,	44	69
7 Boston, Mass.	Curious WORN COAT,	42	71
8 Brooklyn, N. Y.	Fine ROSY HICKORY,	40	74
9 Buffalo, N. Y.	Bold RUNAWAY CUB,	42	79
10 Burlington, V. T.	Dozing RARE GAME,	44	73
11 Charleston, S. C.	Tidy HUMAN VOICE,	32	80
12 Charlestown, Mass.	Tiny WORN COAT,	42	71
13 Chicago, Ill.	Tame WORN FIFE,	42	88
13 Cincinnati, O.	Daring HEMP WEAVER,	39	84
15 Columbia, S. C.	Tall MERE FIGHT,	34	81
16 Columbus, O.	Dutch HEMPY FAME,	39	83
17 Concord, N. H.	Decorated ROME and GOD,	43	71
18 Detroit, Mich.	Tough RAINY or FUMY,	42	83
19 Dover, Del.	Tabby MAYBUG or OWL,	39	75
20 Fishkill, N. Y.	Nice READY CURE,	41	74
21 Frankfort, Ky.	Noted MUFF of FUR,	38	84
22 Fredericton, N. B.	Known RICH JUDGE,	46	66
23 Harrisburg, Pa.	Nameless RISE QUICK,	40	77
24 Hartford, Ct.	Narrow RED GUM,	41	73
25 Indianapolis, Ind.	Null MOB of FISH,	39	86
26 Jackson, Miss.	New shaped MONEY BASE,	32	90
27 Jefferson, Mo.	Naked MUFF or PIANO,	38	92
28 Key West, Florida,	Novel NARROW FAME,	24	83
29 Kingston, N. C.	Noble RARE CASH,	44	76
30 Little Rock, Ark.	Mossy MARROW BONE,	34	92
31 Lockport, N. Y.	Metallic RUM CUP,	43	79
32 Lowell, Mass.	Mean WORN COAT,	42	71
33 Louisville, Ky.	Mimic MIFFY FELLOW,	38	85
34 Milledgeville, Ga.	Marble MAIN for FAME,	33	83
35 Mobile, Ala.	Small AMUSIVE WIFE,	30	88
36 Montreal, L. C.	Missionary RICH COMB,	46	73
37 Montpelier, Vt.	Mock RARE WAGON,	44	72
38 Nashville, Tenn.	Moving MUCH FISH,	36	86
39 Natchez, Miss.	Maple MAY DAY BEAUTY,	31	91
40 Nauvoo, Ill.	Rose WORSE HABIT,	40	91
41 Newark, N. J.	Red ROSY HICKORY,	40	74



42 New Bedford, Mass.	<i>Running</i> WORTHY CAUSE,	N. 41	W. 70
43 New Haven, Ct.	<i>Roman</i> WORTHY GAME,	41	73
44 New Orleans, La.	<i>Rave</i> NEW BABY HOUSE,	29	90
45 Newport, R. I.	<i>Real</i> RED COAT,	41	71
46 New York, N. Y.	<i>Wretched</i> ROSY HICKORY,	40	74
47 Norfolk, Va.	<i>Ragged</i> MAKE a COACH,	37	76
48 Philadelphia, Pa.	<i>Roving</i> HUMBUG WHOLLY,	40	75
49 Pittsburg, Pa.	<i>Ripe</i> RAISE a VOICE,	40	80
50 Plymouth, Mass.	<i>Lazy</i> RUDE CAUSE,	41	70
51 Portland, Me.	<i>Little</i> ARMY of GEESE,	43	70
52 Portsmouth, N. H.	<i>Lean</i> ARMY of GEESE,	43	70
53 Providence, R. I.	<i>Luminous</i> RED COAT,	41	71
54 Quebec, L. C.	<i>Large</i> IRISH COAT,	46	71
55 Raleigh, N. C.	<i>Loyal</i> MILL COFFEE,	35	78
56 Richmond, Va.	<i>Lashed up</i> MICA or COCOA,	37	77
57 Rochester, N. Y.	<i>Lucky</i> WARM COFFEE,	43	78
58 Salem, Mass.	<i>Lively</i> WORN COAT,	42	71
59 Springfield, Ill.	<i>Liberty</i> MOB on HALF PAY,	39	89
60 St. Louis, Mo.	<i>Chosen</i> MIFFY BOYS,	38	90
61 Tallahassee, Fla.	<i>Shot</i> WHIMSY AFFAIR,	30	84
62 Toronto, U. C.	<i>Shining</i> RAW MAGPIE,	43	79
63 Trenton, N. J.	<i>Gem</i> ROSY HICKORY,	40	74
64 Troy, N. Y.	<i>Cheerless</i> RAINY WIGWAM,	42	73
65 Tuscaloosa, Ala.	<i>Shallow</i> MAMMA in VOGUE,	33	87
66 Utica, N. Y.	<i>Judge</i> RAW MAGPIE,	43	79
67 Washington, D. C.	<i>Chalk</i> MIFFY CASK,	38	77
68 Wilmington, Del.	<i>Shivered</i> MAY BUG or OWL,	39	75

## IMPORTANT CITIES AND TOWNS ON THE GLOBE.

1 Acre, Syria,	<i>MYRRH</i> for a MUMMY,	N. 34	E. 33
2 Adrianople, Turkey, E.	<i>New</i> RIDE to ENJOY.	41	26
3 Alexandria, Egypt,	<i>Modern</i> MIGHTY MUSE,	31	30
4 Algiers, Cap. Algiers,	<i>Rich</i> MUCH at HOME,	36	3
5 Amsterdam, Cap. Holland,	<i>Long</i> LEAN HERO,	52	4
6 Antwerp, Belgium,	<i>Chief</i> LEADER,	51	4
7 Astrachan, Cap. Asiatic Russia,	<i>Curious</i> RICH and ROUGH,	46	48
8 Athens, Cap. Greece,	<i>Fine</i> MUFFIN or HAM,	38	23
9 Bagdad, Turkey, A.	<i>Bold</i> MUMMY RARE,	33	44
10 Bangkok, Chin India,	<i>Dozing</i> TAME DISEASE,	13	100
11 Barcelona, Spain,	<i>Tidy</i> READY SIGN,	41	2
12 Batavia, Java,	<i>Tidy</i> SHAD with SAGE,	S. 6	106
13 Berlin, Cap. Prussia,	<i>Tame</i> HOLY ANATHEMA,	52	13
14 Birmingham, Eng.	<i>Daring</i> LINEN,	52	W. 2
15 Bombay, Hindoostan,	<i>Tall</i> TOP of the COMB,	19	73
16 Bordeaux, France,	<i>Dutch</i> REAR an ICEHOUSE,	44	00
17 Breslaw, Prussia,	<i>Decorated</i> WILD DOG,	51	17
18 Bristol, England,	<i>Tough</i> LADEN,	51	W. 2
19 Brussels, Cap. Belgium,	<i>Tabby</i> LAZY HOUR,	50	4
20 Buenos Ayres, Cap. B Ayres,	<i>Nice</i> MERRY LIFE,	S. 34	W. 58
21 Cadiz, Spain,	<i>Noted</i> MATCH a JEW,	36	W. 6
22 Cairo, Cap. Egypt,	<i>Known</i> MASS of MUD,	30	31
23 Calcutta, Cap. Hindoostan,	<i>Nameless</i> NENUPHAR,	22	84
24 Canton, China,	<i>Narrow</i> ENEMY in the DAY TIME,	23	113
25 Capetown, Cap. South Africa,	<i>Null</i> MAIM a DOVE,	S. 33	18



26 Cologne, Prussia,	<i>New shaped LAZY JEW,</i>	N. 50	E. 6
27 Constantinople, Cap. Turkey, E.	<i>Naked WORTHY NEPHEW,</i>	41	28
28 Copenhagen, Cap. Denmark,	<i>Novel ILL WILL to DENY,</i>	55	12
29 Cork, Ireland,	<i>Noble HALLOWED WAVE,</i>	51	W. 8
30 Damascus, Syria,	<i>Mossy MY HOME MUCH,</i>	33	36
31 Dresden, Saxony,	<i>Metallic HALLOWED DOME,</i>	51	13
32 Dublin, Cap. Ireland,	<i>Mean LAME JEW,</i>	53	W. 6
33 Edinburg, Cap. Scotland,	<i>Mimic HILLY and WILLOWY HOME,</i>	55	W. 3
34 Florence, Cap. Tuscany,	<i>Marble REMITTED,</i>	43	11
35 Frankfort, Germany,	<i>Small ALWAYS SAFE,</i>	50	8
36 Galveston, Cap. Texas,	<i>Missionary UNHAPPY BLOW,</i>	29	W. 95
37 Geneva, Switzerland,	<i>Mock RICH SAGE,</i>	46	6
38 Genoa, Cap. Italy,	<i>Moving RARE SOFA,</i>	44	8
39 Ghent, Belgium,	<i>Maple, WEALTHY HOME,</i>	51	3
40 Gibraltar, Spain,	<i>Base MUCH LAW,</i>	36	W. 5
41 Glasgow, Scotland,	<i>Red LILLY HAIR,</i>	55	W. 4
42 Halifax, Nova Scotia,	<i>Running RARE GEM,</i>	44	W. 63
43 Hamburg, Germany,	<i>Roman LAME BOY,</i>	53	9
44 Havana, Cuba,	<i>Rave ENEMY VAIN,</i>	23	W. 82
45 Ispahan, Persia,	<i>Real MONEY and WEALTH,</i>	32	51
46 Jeddo, Cap. Japan,	<i>Wretched MAIL DAMP,</i>	35	139
47 Jerusalem, Syria,	<i>Ragged MEET the MAIL,</i>	31	35
48 Kingston, Jamaica, W. I.	<i>Roving THICK CASH,</i>	17	W. 76
49 Kingston, Upper Canada,	<i>Ripe RARE CASH,</i>	44	W. 76
50 Leeds, England,	<i>Loose LAME and SAD,</i>	53	W. 1
51 Leghorn, Italy,	<i>Little RUM is ODISIOUS,</i>	43	10
52 Lima, Cap. N. Peru,	<i>Lean TON of COCOA,</i>	S. 12	W. 77
53 Lisbon, Cap. Portugal,	<i>Luminous HAM or HEAVY SOUP,</i>	38	W. 9
54 Liverpool, England,	<i>Large LAME SWIM,</i>	53	W. 3
55 London, Cap. England,	<i>Loyal WEALTH,</i>	51	0
56 Lyons, France,	<i>Lashed up RULER,</i>	45	4
57 Madras, Hindoostan,	<i>Lucky WISDOM and VICE,</i>	13	80
58 Madrid, Cap. Spain,	<i>Lively SERIOUS SUM,</i>	40	3
59 Manchester, England,	<i>Liberty ILLUMINE,</i>	53	W. 2
60 Manilla, Phillippine Islands,	<i>Chosen ODOR of TANSY,</i>	14	120
61 Marseilles, France,	<i>Shot WARMLY,</i>	43	5
62 Mexico, Cap. Mexico,	<i>Shining DEEP ATHEISM,</i>	19	W. 103
63 Milan, Italy,	<i>Gem ROYAL SPY,</i>	45	9
64 Morocco, Cap. Morocco,	<i>Cheerless MAY DAY SKY,</i>	31	W. 7
65 Moscow, Russia, E.	<i>Shallow LILLY in a MUG,</i>	55	37
66 Muscat, Arabia,	<i>Judge NEW MILK,</i>	23	58
67 Nankin, China,	<i>Chalk MAN a TIDY FOE,</i>	32	118
68 Naples, Cap. Italy,	<i>Shivered ROSE WATER,</i>	40	14
69 Oporto, Portugal,	<i>Cheap HEARTY VOW,</i>	41	W. 8
70 Palermo, Sicily,	<i>Costly MOVE in TIME,</i>	38	13
71 Paris, France,	<i>Quiet REVENUE,</i>	48	2
72 Pekin, Cap. China,	<i>Cunning EMPTY DISH,</i>	39	116
73 Pernambuco, Brazil,	<i>Common SAFE MAYOR,</i>	S. 8	34
74 Prague, Austria,	<i>Curious LUSTRE,</i>	50	14
75 Quito, Cap. Equador,	<i>Clothes ICE HOUSE and a CAVE,</i>	0	W. 78
76 Riga, Russia,	<i>Kitchen WELCH HONOR,</i>	56	24
77 Rio Janeiro, Cap. Brazil,	<i>Quick NUN in a ROOM,</i>	22	W. 43
78 Rome, Italy,	<i>Quivering HARD TONE,</i>	41	12
79 Rotterdam, Holland,	<i>Capacious LETTER,</i>	51	04
80 Rouen, France,	<i>Fuzzy RAPID,</i>	49	1



81 St. John, West Indies,	<i>Foot</i> DEAF JUDGE,	N. 18	W. 66
82 St. Johns, Newfoundland,	<i>Fine</i> WORK a LASS,	47	W. 52
83 St. Johns, New Brunswick,	<i>Famed</i> ROYAL JUDGE,	45	W. 66
84 St. Petersburg, Russia,	<i>Fair</i> HOLY ABBY at MASS,	59	30
85 St. Salvador, Brazil,	<i>Foolish</i> TINY MUFF,	12	W. 38
86 Seville, Spain,	<i>Fashionable</i> MAKE SAIL,	37	W. 5
87 Smyrna, Turkey,	<i>Vigorous</i> MOVE a YANKEE,	38	27
88 Stockholm, Sweden,	<i>Vivid</i> HELP the DEAF,	59	18
89 Sidney, Australasia,	<i>Vaporous</i> MAMMA with DELIGHT,	S. 33	151
90 Trieste, Austria,	<i>Passable</i> REAL TIME,	45	13
91 Tripoli, Cap. Tripoli,	<i>Beautiful</i> MEAN TIME,	32	13
92 Tunis, Cap. Tunis,	<i>Bending</i> MUCH of a DOSE,	36	10
93 Valparaiso, Chili,	<i>Bemoaning</i> SOME MOCKED,	S. 33	71
94 Venice, Italy,	<i>Bright</i> ROLL of TIN,	45	12
95 Vera Cruz, Mexico,	<i>Blunt</i> TOP of the PAGE,	19	W. 96
96 Vienna, Austria,	<i>Patched</i> ROUGH DISH,	48	16
97 Warsaw, Poland,	<i>Begging</i> LINEN and WAD,	52	21

## LENGTH OF RIVERS.

The learner will memorize the length of rivers much sooner by connecting the indicating words with the names of the rivers in a sentence.

### EXAMPLE.

*On the banks of the* Mississippi there are some beautiful \*ROADS, 4100.  
*On the shores of the* Missouri can be seen flocks of *New* SNIPES, 2900.

### NORTH AMERICA.

Mississippi,	*ROADS, 4100	<i>Tough</i> Peace,	}	WAVES, 800	
<i>New</i> Missouri,	SNIPES, 2900	<i>Tabby</i> Colorado,			
<i>Modern</i> Mackenziè,	NAILS, 2500	<i>Nice</i> Frazers,	}	CHASE, 600	
<i>Rich</i> St. Lawrence,	NUNS, 2200	<i>Noted</i> Utawas,			
<i>Long</i> Arkansas,	NOSES, 2000	<i>Known</i> Clarks,			
<i>Chief</i> Rio del Norte,	DOVES, 1800	<i>Nameless</i> Semerone,			
<i>Curious</i> Columbia,	} each, ATLAS, 1500	<i>Narrow</i> Brazos,	}	CHASE, 600	
<i>Fine</i> Red,		<i>Null</i> Cumberland,			
<i>Bold</i> Ohio,	TEAMS, 1300	<i>New shaped</i> Big Horn,	}		
<i>Dozing</i> Saskatchewan,	} TONES, 1200	<i>Naked</i> White,			
<i>Tidy</i> Platte,		<i>Novel</i> Alabama,	}	LOSS, 500	
<i>Tiny</i> Lewis,	DATES, 1100	<i>Mossy</i> Liards,			
<i>Tame</i> Kansas,	} DISEASES, 1000	<i>Metallic</i> Albany,	}		
<i>Daring</i> Yellowstone,		<i>Mean</i> Koksah,			
<i>Tall</i> Canadian,	} PEAS, 900	<i>Mimic</i> East Main,	}		
<i>Dutch</i> Churchill,		<i>Marble</i> Red,			
<i>Decorated</i> Tennessee,		<i>Small</i> Gila,			

\*To each of the translations add one cypher. Example—ROADS, 410-0.



<i>Missionary Susquehanna,</i>	} Loss, 500	<i>Gem Nelson,</i>	} MAIL, 350
<i>Mock Potomac,</i>		<i>Cheerless Neuces,</i>	
<i>Moving Illinois,</i>		<i>Shallow Penobscot,</i>	
<i>Maple Wabash,</i>		<i>Judge Hudson,</i>	
<i>Rose Nesuketonga,</i>		<i>Chalk Alleghany,</i>	
<i>Red Washita,</i>		<i>Shivered Cape Fear,</i>	
<i>Running James,</i>		<i>Cheap Pearl,</i>	
<i>Roman Roanoke,</i>		<i>Costly Iowa,</i>	
<i>Rare Savannah,</i>		<i>Quiet Hay,</i>	
<i>Real Tombigbee,</i>		<i>Cunning Severn,</i>	
<i>Wretched St. Johns, N. B.</i>	} ROLL, 450	<i>Common St. Peters,</i>	} MOUSE, 300
<i>Ragged Connecticut,</i>		<i>Curious Kennebec,</i>	
<i>Raving Great Pedee,</i>		<i>Clothes Monongahela,</i>	
<i>Ripe Des Moines,</i>		<i>Kitchen Rock,</i>	
<i>Lazy Osage,</i>		<i>Quick Kaskaskia,</i>	
<i>Little Clamet,</i>		<i>Quivering Green,</i>	
<i>Lean Great Whale,</i>		<i>Capacious Licking,</i>	
<i>Luminous Saguenay,</i>		<i>Fuzzy Neuse,</i>	
<i>Large Grande,</i>		<i>Foot St. Peters,</i>	
<i>Loyal Delaware,</i>		<i>Fine Big Black,</i>	
<i>Lashed Wisconsin,</i>	} ROSE, 400	<i>Famed St. Johns, Fa,</i>	} NAIL, 250
<i>Lucky Kanawha,</i>		<i>Fair Little Missouri,</i>	
<i>Lively Altamaha,</i>		<i>Foolish Teton,</i>	
<i>Liberty Yazoo,</i>		<i>Fashionable Merrimac,</i>	
<i>Chosen James, I. T.</i>		<i>Vigorous Tar,</i>	
<i>Shot St. Francis,</i>		<i>Vivid White,</i>	
<i>Shining Waptiacoons,</i>			

## SOUTH A M E R I C A .

<i>Amazon,</i>	MATCHES, 3600	<i>Noted Puras,</i>	BASE, 900
<i>New Rio de la Plata,</i>	UNION or LAW, 2250	<i>Known Uaupes,</i>	} FACE, 800
<i>Modern Madeira,</i>	NO NEWS, 2200	<i>Nameless Putumayo,</i>	
<i>Rich Parana,</i>	DEBASE, 1900	<i>Narrow Jurua,</i>	
<i>Long Oronoco,</i>	ATLAS, 1500	<i>Null Parnaiba,</i>	
<i>Chief Zingu,</i>	} TIMES, 1300	<i>New shaped Salado,</i>	
<i>Curious St. Francisco,</i>		<i>Naked Uruguay,</i>	
<i>Fine Rio Negro,</i>		<i>Novel Jutay,</i>	
<i>Bold Ucayale,</i>		<i>Mossy Rio Negro,</i>	
<i>Dozing Para,</i>		<i>Metallic Cauca,</i>	
<i>Tidy Mamore,</i>		<i>Mean Meta,</i>	
<i>Tiny Caqueta,</i>		<i>Mimic Guaviare,</i>	
<i>Tame Tapajos,</i>		<i>Marble Arauca,</i>	} LOSS, 500
<i>Daring Tocantins,</i>	DATES, 1100	<i>Small Huallaga,</i>	
<i>Tall Araguay,</i>	} DISEASES, 1000	<i>Mission Gurapy,</i>	
<i>Dutch Pilcomayo,</i>		<i>Mock Guapore,</i>	
<i>Decorated Vermajo,</i>		<i>Moving Paraiba,</i>	
<i>Tough Colorado,</i>		<i>Maple Negro,</i>	
<i>Tabby Magdalena,</i>		<i>Rosy Saladillo,</i>	
<i>Nice Tunguragua,</i>		<i>Red Maroni,</i>	
	BASE, 900		

## E U R O P E .

<i>Volga,</i>	MOSES, 2000	<i>Modern Don,</i>	} DIOCESE, 1000
<i>New Danube,</i>	DUCHESS, 1600	<i>Rich Dneiper,</i>	



<i>Long Rhine,</i>	VOICE, 800	<i>Naked Save,</i>	RACE, 400
<i>Chief Dwina,</i>	GOOSE, 700	<i>Novel Onega,</i>	
<i>Curious Petchora,</i> }	SHOES, 600	<i>Noble Dahl,</i>	
<i>Fine Elbe,</i> }		<i>Mossy Bug,</i>	
<i>Bold Vistula,</i> }	LILY, 550	<i>Metallic Wartha,</i>	MAIZE, 300
<i>Dozing Tagus,</i> }		<i>Mean Weser,</i>	
<i>Tidy Dniester,</i> }	LOSS, 500	<i>Mimic Seine,</i>	
<i>Tiny Loire,</i> }		<i>Marble Garonne,</i>	
<i>Tame Viatka,</i> }		<i>Small Guadelquiver,</i>	
<i>Daring Prypetz,</i>		<i>Missionary Umea,</i>	
<i>Tall Donetz,</i>		<i>Mock Tornea,</i>	
<i>Dutch Odruth,</i> }	ROLL, 450	<i>Moving Kalix,</i>	NAIL, 250
<i>Decorated Douro</i>		<i>Maple Glommen,</i>	
<i>Tough Rhone,</i>		<i>Rosy Clara,</i>	
<i>Tabby Thesis,</i> }		<i>Red Lulea,</i>	
<i>Nice Mezene,</i>		<i>Running Skelleftea,</i> }	NICE, 200
<i>Noted Desna,</i>		<i>Roman Luisna,</i>	
<i>Known Bog,</i>	HORSE, 400	<i>Rare Ems,</i>	*THICKLY, 175
<i>Nameless Pruth,</i>		<i>Real Indal,</i>	
<i>Narrow Gaudiana,</i>		<i>Wretched Minho,</i> }	DOLE, 150
<i>Null Po,</i>		<i>Ragged Tiber,</i>	
<i>New shaped Drave,</i> }	RACE, 400		

## A S I A .

<i>Yang-tse-kiang,</i>	NOVICE, 2800	<i>Tough Sutlege,</i>	
<i>New Lena,</i>	NATCHEZ, 2600	<i>Tabby Salwen,</i> }	BASS, 900
<i>Modern Obi,</i> }	SINLESS, 2500	<i>Nice Ishim,</i>	FACE, 800
<i>Rich Hoang Ho,</i> }	NAMES, 2300	<i>Noted Tigris,</i>	
<i>Low Yenesei,</i>	NO NOISE, 2200	<i>Known Nerbuddah,</i> }	FACE, 800
<i>Chief Amoor,</i>	NOISES, 2000	<i>Nameless Meinam,</i>	
<i>Curious Irtish,</i> }	TAX, 1700	<i>Narrow Tobol,</i>	
<i>Fine Cambodia,</i> }	DITCHES, 1600	<i>Nullified Sihon,</i>	GEESE, 700
<i>Bold Indus,</i> }		<i>New shaped Cashgar,</i>	
<i>Dozing Irrawaddy,</i> }	TOILS, 1500	<i>Naked Hoang-kiang,</i>	
<i>Tidy Ganges,</i>	TREES, 1400	<i>Novel Kolima,</i>	
<i>Tiny Tungoska,</i> }	DISEASE, 1000	<i>Noble Helmund,</i> }	SHOES, 600
<i>Tame Burrampooter,</i>	BASS, 900	<i>Mossy Godavery,</i>	
<i>Daring Euphrates,</i>		<i>Metallic Usuri,</i> }	LOSS, 500
<i>Tall Amoo,</i> }		<i>Mean Krishna,</i>	
<i>Dutch Songari,</i> }		<i>Mimic Mahanuddy,</i>	RAIL, 450
<i>Decorated Indighirca,</i>		<i>Marble Attruck,</i>	MUSE, 300

## A F R I C A .

<i>Nile,</i> }	KNIVES, 2800	<i>Chief Gambia,</i>	GOOSE, 600
<i>New Niger,</i> }	TONES, 1200	<i>Curious Taccazze,</i> }	CHOICE, 600
<i>Modern Senegal,</i>	DISEASE, 1000	<i>Fine Ambriz,</i>	
<i>Rich Orange,</i>	VOICE, 800	<i>Bold St. Paul's</i>	MASS, 300
<i>Long Abawi,</i>			

## O C E A N I C A .

<i>Murray,</i>	DISEASE, 1000
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\*An exception to the rule—no cypher to be added.



## ALTITUDE OF MOUNTAINS, AND OTHER ELEVATIONS ON THE GLOBE.

	<i>Feet.</i>
Chumularee, highest in the world—Thibet,	NAP of an EASY SWISS, 29,000
Sorata, highest in America—Bolivia,	New NAIL up the MUFFS, 25,380
Highest flight of a balloon—France,	Modern NAMES in an ICE-HOUSE, 23,000
Chimborazo—Equador,	Rich NULL to a RARE HERO, 21,444
Highest flight of a condor—South America,	Long WANTS of a SWISS, 21,000
Hindoo Koosh—Affghanistan,	Chief ANISE in CHEESES, 20,600
Highest spot ever trod by man—Equador,	Curious DEEP RECESS, 19,400
Cotopaxi, highest Volcano—Equador,	Fine TOUGH FOE BEAT, 18,891
St. Elias, highest mountain in North America,	Bold DIG the BASIS, 17,900
Popocatepetl, highest in Mexico,	Dozing TALK to EXCESS, 17,700
Mouna Roa, highest in Oceanica—Hawaii,	Tidy TALK of LOSSES, 17,500
Brown, highest of Rocky mountains—N. America,	Tiny AUDACIOUS SWISS, 16,000
Mt. Blanc, highest in Europe—Italy,	Tame DULL SHOVEL, 15,685
Limit of perpetual snow at the equator,	Daring DULL NOISES, 15,200
Volcano Guatemala,	Tall TALES of the SWISS, 15,000
Antisana farm-house—Equador,	Dutch DEAR to the MASSES, 14,300
Demavend, highest of Elburz mountains—Persia,	Decorated DAIRY HOUSES in USE, 14,000
Mt. Ophir—Sumatra,	Tough TAME FACES, 13,800
Limit of pines under the equator,	Debased TAWNY FACES, 12,800
City of La Paz—Bolivia,	Nice TINY COACHES, 12,760
Mt. Ararat—Armenia,	Noted DONE to EXCESS, 12,700
Miltsin, highest of Atlas mountains—Morocco,	None DENY the LASSES, 12,500
Peak of Teneriffe—Canaries,	Nameless TONE of a TICK WATCH, 12,176
Mulhacen, highest of Sierra Nivada—Spain,	Narrow TAUGHT VICES, 11,800
Mt. Perdu, highest of Pyrenees—France,	Null DETAIN in JAIL, 11,265
Mt. Ætna, Volcano—Sicily,	New shaped IDEAS of a PALACE, 10,950
Limit of oaks under the equator,	Naked DOES LESS in a HOUSE, 10,500
Mt. Lebanon—Syria,	Novel DAISIES of a SIZE, 10,000
Ruska Poyana, highest of Carpathian—Austria,	Noble PIPE of TIN, 9,912
City of Quito—Equador,	Mossy BOYISH MESS, 9,630
St. Bernard convent—Switzerland,	Metallic FACE MOVE, 8,038
Pendus, highest in Greece,	Mean COYISH QUACK, 7,677
City of Mexico—Mexico,	Marble QUEER GOOSE, 7,470
Black mountain, highest of Blue Ridge—N. Carolina,	Small CHAIR of a COACH, 6,476
Mt. Washington, highest of White mountains—N. Hampshire,	Mushy SHARE of ENVY, 6,428
Mt. Marcy, in New York,	Mock LOW MUSES, 5,300
Mt. Hecla, highest in Iceland,	Moving ROUGH FIFE, 4,888
Ben Nevis, highest in G. Britain—Scotland,	Maple ROOM in a CAB, 4,379
Mansfield, highest of the Green Mountains,	Rosy RUN in a CAB, 4,279
Peaks of Otter—Virginia,	Red RUIN of AGES, 4,260
Mt. Vesuvius, Volcano—Naples,	Running MAP of the MOON, 3,932
Round Top, of Catskill mountains—New York,	Roman MIFFY SIRE, 3,804
Snowdon, highest in South Britain—Wales,	Rare MEAL and CHAFF, 3,568
Pyramids, highest work of man—Egypt,	Real WHOLE PIPE, 599
Mt. Corno, highest of Appenines, Naples,	Wretched PALE NUT, 9,521
Snehatta, highest of Dofrafield, Sweden,	Ragged FINE HOUSES, 8,200
Mt. Sinai—Arabia,	Ripe FIT to SHAVE, 8,168



## EXTENT OF COUNTRIES.

IN SQUARE MILES.

## NORTH AMERICA.

Russian America,	LOSSES,*	500,000
Greenland,	<i>New FURS,</i>	840,000
British America,	<i>Modern SNOW and MIGHTY ICE,</i>	2,310,000
United States,	<i>Rich NAME of an ICE HOUSE,</i>	2,300,000
Texas,	<i>Long HUMAN EYES,</i>	320,000
Mexico and Yucatan,	<i>Chief TAME VICE,</i>	1,380,000
Guatemala,	<i>Curious NOSES,</i>	200,000
West Indies,	<i>Fine DISEASE,</i>	100,000
<i>Bold GAP in the LACE,</i>		Total, 7,950,000

## SOUTH AMERICA.

New Grenada,	<i>Dozing RELEASE,</i>	450,000
Venezuela,	<i>Tidy RUINS,</i>	420,000
Equador,	<i>Tiny NOVICE,</i>	280,000
Guiana,	<i>Tame DUCHESS,</i>	160,000
Peru,	<i>Daring ARMIES,</i>	430,000
Bolivia,	<i>Tall RELEASE,</i>	450,000
Chili,	<i>Dutch TAX,</i>	170,000
Brazil,	<i>Decorated MUMPS,</i>	3,390,000
Buenos Ayres,	<i>Tough GLASS,</i>	750,000
Paraguay,	<i>Tabby FIFE,</i>	88,000
Uruguay,	<i>Nice PONY,</i>	92,000
Patagonia,	<i>Noted MIX,</i>	370,000
<i>Known to be CAUSELESS,</i>		Total, 7,050,000

## EUROPE.

Sweden and Norway,	<i>Nameless WINNIPEG,</i>	207,000
Russia and Poland,	<i>Narrow DUCK and EAGLE,</i>	1,775,000
Denmark,	<i>Null UNION,</i>	22,000
Holland,	<i>New shaped TIDE,</i>	11,000
Belgium,	<i>Naked DOME,</i>	13,000
Great Britain and Ireland,	<i>Novel DAINTY,</i>	121,000
France,	<i>Noble NO SALE,</i>	205,000
Spain,	<i>Mossy DEFAME,</i>	183,000
Portugal,	<i>Metallic MOB,</i>	39,000
Prussia,	<i>Mean DESK,</i>	107,000
Austria,	<i>Mimic NEW HELP</i>	259,000
Smaller German States,	<i>Marble DOZEN,</i>	102,000
Switzerland,	<i>Small TELL,</i>	15,000
Italy,	<i>Mushy ATHENIAN,</i>	122,000
Ionian Islands,	<i>Mock DAY,</i>	1,000
Greece,	<i>Moving INDIES,</i>	210,000
Turkey,	<i>Maple NOSEGAY,</i>	207,000
<i>Rosy HOMAGE of a FOP,</i>		Total, 3,689,000

\*To each Translation, add three ciphers. Thus: LOSSES—500-000.



## A S I A .

Asiatic Russia,	<i>Red</i> WHOLE MASSES,	5,300,000
Independent Tartary,	<i>Running</i> GIPSY,	690,000
Turkey,	<i>Roman</i> MUCK HOUSE,	370,000
Syria and Palestine,	<i>Rare</i> JEWESS,	60,000
Arabia,	<i>Real</i> PAPACY,	990,000
Persia,	<i>Wretched</i> ROCKS,	470,000
Affghanistan,	<i>Ragged</i> MERCY,	340,000
Beloochistan,	<i>Roving</i> NOSES,	200,000
Hindoostan,	<i>Ripe</i> DUNCES,	1,200,000
Eastern or Chin India,	<i>Lazy</i> HAPPINESS,	920,000
Chinese Empire,	<i>Little</i> ALLIANCES,	5,200,000
Japan,	<i>Lean</i> NATCHEZ,	260,000
	<i>Luminous</i> DUTCH ICEHOUSES,	Total, 16,000,000

## A F R I C A .

Barbary,	<i>Large</i> LAKES,	570,000
Egypt,	<i>Loyal</i> DEVICE,	180,000
Nubia,	<i>Lashed up</i> IMMENSE,	320,000
Abyssinia,	<i>Lucky</i> NOVICE,	280,000
Great Desert,	<i>Lively</i> NOTCH of an ICEHOUSE,	2,600,000
Soudan,	<i>Liberty</i> DUNCES,	1,200,000
Bergoo, Darfor, &c.,	<i>Chosen</i> LOW HEROES,	540,000
Senegambia,	<i>Shot</i> HOMELESS,	350,000
Upper Guinea,	<i>Shining</i> NOVICE,	280,000
Lower Guinea,	<i>Gem</i> NOTCH of ICE,	260,000
Southern Africa,	<i>Cheerless</i> REFUSE,	480,000
Eastern Africa,	<i>Shallow</i> CHEESES,	600,000
Ethiopea,	<i>Judge</i> MIGHTY MASS,	3,130,000
African Islands,	<i>Chalk</i> NEW DICE,	210,000
	<i>Shivered</i> DIE of DISEASES,	Total, 11,000,00

## DIRECTIONS.

As in the preceding Sections, all the *indicating phrases* relating to one State, on the following page, should be joined to the name of the State, by constructing a sentence.

## EXAMPLES.

In Maine were MANY ROSES found in a DUTCH MASS, where they continued STILL to TALK.

In New Hampshire they were made to WEEP over LOSSES, not about a DUTCH NAME, UNLESS a HERO.

To avoid mistake in assigning the right number of figures to the members which each State sends to Congress, the *symbol* which corresponds to the number should be *located* in those States which send more than can be expressed by one figure.

## EXAMPLES.

Massachusetts, Kentucky, and Indiana, each send 10 members. The *Dozing chair* should be *located* in each of them.

Ohio sends 21 members, in which should be located the *Noted bear*.



## STATISTICS OF THE UNITED STATES.

States.	Square Miles.	When Settled.	State & U. S. Representatives.
Maine.	MANY ROSES,	32,400 DUTCH MASS,	1630 STILL TO TALK, *151 †7
New-Hampshire.	New WEEP OVER LOSSES,	9,500 DUTCH NAME,	1623 UNLESS A HERO, 250 4
Vermont.	Modern HAPPY KISSES,	9,700 THICK NAIL,	1725 ENEMY IN THE MIRE, 233 4
Massachusetts.	Rich WEAK VOICES,	7,800 TOYISH NOISE,	1620 MILITIA DAYS, 356 10
Rhode Island.	Long DENY A LADY,	1,251 TEACH MUCH,	1636 CANNON, 72 2
Connecticut.	Chief RAKE OF FOP,	4,789 DUTCH MUMMY,	1633 NEAT LAWYER, 215 4
New-York.	Curious RASH ANNOYANCE,	46,220 DISH WATER,	1614 A TINY FOE IN THE MIRE, 128 34
New-Jersey.	Fine COOPER'S FEE,	7,941 ADDITION OF AN HOUR,	1624 JOYOUSLY, 60 5
Pennsylvania.	Bold Rich NODDLE,	46,215 DUTCH FAN,	1682 HOT SEASONER, 100 24
Delaware.	Dozing NOISY CHIEF,	2,068 TEACH A NAG,	1627 NOTED, 21 1
Maryland.	Tidy DAISY, OAK AND LILY,	10,755 DODGE THE MIRE,	1634 GAVE A SHOE, 78 6
Virginia.	Tiny JAIL CASES,	65,700 TIE ON A WATCH-HOUSE KEY,	1607 ADMIRE THE TOIL, 134 15
North-Carolina.	Tame LIGHT OF A WATCHMAN,	51,632 STAGELESS,	1650 WITNESS OF A BOY, 120 9
South-Carolina.	Daring MIDDLE OF JULY,	31,565 WHITISH WAX,	1670 TINY RAKE, 124 7
Georgia.	Tall SHOUT OF JOY FOR FAME,	61,683 DUCK A MUMMY,	1733 NEW SKIFF, 207 8
Alabama.	Dutch LOWER SPHERE,	54,084 TAX FOR WINE,	1702 DIES SICK, 100 7
Mississippi.	Decorated ROB THE MILITIA,	49,456 TALK DETCH,	1716 BATTERY, 91 4
Louisiana.	Tough REQUIRE TIME,	47,413 TEACH A BABY,	1699 CHOICE HERO, 60 4
Arkansas.	Tabby LARGE DOG,	54,617 DUTCH FLEE,	1685 JEW SHOT, 66 1
Tennessee.	Nice RUDE COLONY,	41,752 TOOK THE LASH,	1756 CALL OF DUTY, 75 11
Kentucky.	Noted RAISES THE ENEMY,	40,023 DUCK AND AN EAGLE,	1775 DOZES AND DIES, 100 10
Ohio.	Known WORSE LOSSES,	40,500 DOG AND FIFE,	1788 GONE IN THE NIGHT, 72 21
Michigan.	Nameless CHEESE FROM A LAME COW,	60,537 TOUCH THE CAUSE,	1670 ALARM, 54 3
Indiana.	Narrow SMALL CHANGE,	35,626 WITTY CHAPS,	1690 DISEASED SO, 100 10
Illinois.	Mall EULOGY ON A HOLY SAGE,	56,506 STITCH OF FAME,	1683 POETIC, 91 7
Missouri.	New shaped EXCESS OF LIES,	70,050 TAKE A CHUM,	1763 REPEAL, 49 5
Dist. of Columbia.	Naked DISUSE,	100	
Florida.	Novel SLYISH AND MUMMISH,	56,336 TALL JAIL,	1656 DAY, 1
Wisconsin.	Noble PONY ON PUMICE,	92,930	
Iowa.	Mossy DOG AND MUCK FISH,	173,786	
Texas.	Metallic MAN WAS SO SAUCY,	320,000 TOUGH NAME,	1823 JUDGE NOW, 66 2

\*Number of Representatives sent to the State Legislature. †Number sent to Congress.  
 Each State sends 2 Senators, and has as many Electors as there are members in both houses of Congress. Ex: Rhode Island has 2 Senators and 4 Electors.



## ASTRONOMY.

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OF all the sciences, with which man is acquainted, there is none which has drawn more largely on the *imagination* than Astronomy. When our attention is directed to the heavens, for the purpose of taking an outline of the constellations, we find ourselves continually assisted in our wanderings through the wide expanse of "celestial scenery," by the *symbols* with which the fruitful imagination of the ancients, covered the great dome above us.

Do we not find relief in this "devious maze," by tracing out the *Twins*, the *Crab*, *Orion*, *Ursa Minor*, (*Little Bear*), *Ursa Major*, (*Great Bear*.)

Let the pupil now place himself in the centre of his mnemonic room, as when studying geography, and locate these constellations on the walls of his *transparent dome*, with the stars all shining through, so that he can trace them all clearly, giving to each its right name. It will be recollected that the stars placed to the right hand on a globe, you must look for on your left in the sky, and *vice versa*—here this difficulty is obviated; for seating yourself in the geographical rooms, and you will be surrounded by the stars in their proper places. The longitude of a star is reckoned round the globe. As we start from Iceland, and go in a straight direction until we reach Iceland again, in geography; so in astronomy we commence at *Aries*, which should be placed down close to the floor of the upper room—the *ecliptic*—(the same as the meridian from which we measure longitude, in geography)—and count up to 90 deg. on the first, or left hand wall, and from 90 to 180 deg. on the second, and from 180 to 270 deg. on the third, and from 270 to 360 on the fourth wall, where it comes up to *Aries* again.

"For the sake of convenient reference, the heavens were early divided into constellations, and particular names assigned to the constellations, and to the stars which they contain. A constellation may be defined to be a cluster or group of stars, embraced in the outline of some figure. These figures are in many cases *creations* of the *imagination*, but in others, the stars are in reality so arranged as to form figures which have some resemblance to the objects whose names have been assigned to them.

"These divisions of the celestial sphere bear a striking analogy to the civil divisions of the globe. The constellations answer to states and kingdoms, the most brilliant clusters to towns and cities, and the num-



ber of stars in each, to their respective population. The pupil can trace the boundaries of any constellation, and name all its stars, one by one, as readily as he can trace the boundaries of a state, or name the towns and cities from a map of New England."—*Geography of the Heavens*.

## 96 CONSTELLATIONS.

WITH THE NUMBER OF STARS BELONGING TO EACH,

WITH THE MONTHS WHEN THEY APPEAR.

### JANUARY.

1 Eridanus,	PEAR, 84
2 Reticulus,	New DICE, 10
3 Taurus,	Modern DART, 141
4 Brandenburg,	Rich YAM, 3
5 Praxiteles,	Long DISH, 16
6 Camelopard,	Chief WOLF, 58
7 Auriga,	Curious JUDGE, 66
8 Sword Fish,	Fine SHOW, 6
9 Mous Mensæ,	Bold MICE, 30
10 Lepus, the Hare,	Dozing DUPE, 19
11 Orion,	Tidy CALF, 78
12 Painter's Horse,	Tiny FOE, 8
13 Noah's Dove,	Tame DOSE, 10

### FEBRUARY.

14 Canis Major,	Daring MAID, 31
15 Monoceros,	Tall MAID, 31
16 Gemini,	Dutch HOVEL, 85
17 The Lynx,	Decorated WARRIOR, 44
18 Argo Navis,	Tough CHERRY, 64

### MARCH.

19 Canis Minor,	Tabby ADDER, 14
20 Flying Fish,	Nice HIVE, 8
21 Cancer,	Noted FAME, 83
22 Mariner's Compass,	Known HERO, 4
23 Hydra,	Nameless CHAISE, 60

### APRIL.

24 Sextant,	Narrow ROAD, 41
25 Leo Minor,	Null LIMB, 53
26 Leo Major,	New shaped PLOW, 95
27 Air Pump,	Naked HOME, 3
28 Ursa Major,	Novel FOG, 87
29 Robur Caroli,	Noble TUNE, 12
30 Crater, the Cup,	Mossy MEADOW, 31

### MAY.

31 Camelion,	Metallic DICE, 10
32 The Cross,	Mean OIL, 5
33 Coma Berenices,	Mimic RUM, 43
34 Corvus, the Crow,	Marble PEA, 9
35 Southern Fly,	Small HALL, 5
36 Cor Caroli,	Missionary HYMN, 3
37 Virgo,	Mock DATES, 110
38 Asterion et Chara,	Moving SNAIL, 25
39 Centaurus,	Maple MILL, 35

### JUNE.

40 Bootes,	Rosy LYRE, 54
41 Compasses,	Red HARROW, 4
42 Mons Mænalus,	Running TIDE, 11
43 Libra,	Roman LADY, 51
44 Lupus, the Wolf,	Rare SNARE, 24

### JULY.

45 Corona Borealis,	Real NUT, 21
46 Ursa Minor,	Wretched SNEER, 24
47 The Serpent,	Ragged SHORE, 64
48 S. Triangle,	Roving OWL, 5
49 Euclid's Square,	Ripe TONE, 12
50 Scorpio,	Lazy AURORA, 44
51 Bird of Paradise,	Little TOOTH, 11
52 Ara, the Altar,	Lean BEE, 9
53 Hercules,	Luminous DAY TIME, 113
54 Serpentarius,	Large CROW, 74

### AUGUST.

55 Draco,	Loyal OFFICE, 80
56 Cerberus,	Lashed,
57 Scutum Sobieski,	Lucky,
58 Taurus Poniatowski,	Lively DISH, 16



59 Corona Australis,	<i>Liberty DAWN</i> , 12	79 Cepheus,	<i>Quick</i> .
60 Telescopium,	<i>Chosen BOY</i> , 9	80 Pegasus,	<i>Fuzzy FOP</i> , 89
61 Lyra, the Harp,	<i>Shot HINDOO</i> , 21		
62 Sagitarius,	<i>Shining SHIP</i> , 69		
63 Antinous,	<i>Gem GEM</i> , 63		

SEPTEMBER.

64 Sagitta,	<i>Cheerless THIEF</i> , 18
65 Aquila,	<i>Shallow ACT</i> , 71
66 Fox and goose,	<i>Judge MAIL</i> , 35
67 The Peacock,	<i>Chalk TRAY</i> , 14
68 Delphinus,	<i>Shivered THIEF</i> , 18
69 Cygnus,	<i>Cheap FOOD</i> , 81
70 Capricorn,	<i>Costly LUTE</i> , 51
71 Hadley's Quadrant,	<i>Quiet RAM</i> , 43
72 Microscopium,	<i>Burning DOSE</i> , 10
73 The Indian,	<i>Common TUNE</i> , 12
74 Equuleus,	<i>Curious DICE</i> , 10

OCTOBER.

75 The Crane,	<i>Close TIME</i> , 13
76 Aquarius, <i>Kitchen</i> ,	<i>DOZY WIFE</i> , 108
77 Southern Fish,	<i>Quick SNARE</i> , 24
78 The Lizard,	<i>Quivering THATCH</i> , 16

NOVEMBER.

81 American Goose,	<i>Foot TUB</i> , 19
82 Officina Sculptoria,	<i>Fine TUNE</i> , 12
83 Pisces,	<i>Famed DIADEM</i> , 113
84 Phoenix,	<i>Fair DAME</i> , 13
85 Cassiopeia,	<i>Foolish LILLY</i> , 55
86 Andromeda,	<i>Fashionable JUDGE</i> , 66

DECEMBER.

87 Cetus,	<i>Vigorous EPIC</i> , 97
88 Triangulum,	<i>Vivid DITCH</i> , 16
89 Hydrus,	<i>Vaporous DAYS</i> , 10
90 Aries,	<i>Passably SHOWISH</i> , 66
91 Triangulum Minor,	<i>Beautiful HALL</i> , 5
92 Horologium,	<i>Bending TIN</i> , 12
93 Musca,	<i>Bemoaning HERO</i> , 4
94 Chemical Furnace,	<i>Bright WATER</i> , 14
95 Caput Medusæ,	<i>Blunt</i> .
96 Perseus,	<i>Patched LIP</i> , 59

PLANETS.

WITH THEIR DISTANCES FROM THE SUN IN ENGLISH MILES.

1 MERCURY,	<i>Stout MATCH</i> ,	36,000,000
2 VENUS,	<i>New JUG</i> ,	67,000,000
3 EARTH,	<i>Modern POEM CAN SHOW</i> ,	93,726,000
4 MOON,	<i>Rich NUMB BEE</i> , (from the Earth,)	239,000
5 MARS,	<i>Long DRONE</i> ,	142,000,000
6 VESTA,	<i>Chief NEW NOUN</i> ,	222,000,000
7 JUNO,	<i>Curious NEW ROBE</i> ,	249,000,000
7 CERES,	<i>Fine WAN LIP</i> ,	259,000,000
8 PALLAS,	<i>Bold HONEYLESS</i> ,	250,000,000
10 JUPITER,	<i>Dozing REVOKE</i> ,	487,000,000
11 SATURN,	<i>Tidy FIBRE</i> ,	894,000,000
12 URANUS,	<i>Tiny THICK BEAK</i> ,	1,797,000,000

When the foregoing indicating words are translated into figures, add six cyphers. Example—MATCH, 36,000,000. Exceptions—the Earth and Moon, where only three cyphers are to be added.

It will be seen that this system is capable of a much more extended application to Astronomy. Those who wish to see a very ingenious adaptation of mnemonic rules to almost every conceivable number relating to all the planets, of the Solar system, will find it in GOURAUD'S *Phreno-Mnemotechnic "Lectures on Memory,"* to which work we are indebted for many useful hints.



## DISCOVERIES AND IMPROVEMENTS IN THE ARTS AND SCIENCES.

- |  | B. C.                        |
|--|------------------------------|
| 1 Astronomical observations first made in Babylon,                       | KNOWN MOOR, 2234             |
| 2 Lyre invented,   | New NICE SEA HERO, 2004      |
| 3 Sculpture,   | Modern DIP in the SEAS, 1900 |
| 4 Letters invented by Memnon, the Egyptian,                              | Rich DIVINE IDEA, 1821       |
| 5 Agriculture, by Triptolemus,   | Long TEACHES US, 1600        |
| 6 Chariots of war,   | Chief TALL SIZE, 1500        |
| 7 Alphabetic letters introduced into Europe,                             | Curious TALL SIZE, 1500      |
| 8 The first ship seen in Greece, arrived at Rhodes from Egypt,           | Fine WATERFALL, 1485         |
| 9 Iron discovered in Greece by the burning of Mount Ida.                 | Bold WATER SWASH, 1406       |
| 10 Seaman's compass invented in China,                                   | Dozing DEADNESS, 1120        |
| 11 Gold and silver money first coined by Phidon, king of Argos,          | Tidy VIPER, 894              |
| 12 Parchment invented by Attalus, king of Pergamus,                      | Tiny SAFE FIG, 887           |
| 13 Weights and measures instituted,                                      | Tame FISH BOY, 869           |
| 14 First eclipse observed,   | Daring SQUINT, 721           |
| 15 Ionic order used in building,   | Tall JEWEL HOUSE, 650        |
| 16 Maps and globes invented by Anaximander,                              | Dutch CHEESES, 600           |
| 17 Sun Dials invented,   | Decorated LOW ELF, 558       |
| 18 Signs of Zodiac invented by Anaximander,                              | Tough LARK, 547              |
| 19 Corinthian order of architecture,                                     | Tabby HOLLY ROSE, 540        |
| 20 First public library established at Athens,                           | Nice LAUNCH, 526             |
| 21 Silk brought from Persia to Greece,                                   | Noted MANUEL, 325            |
| 22 The art of painting brought from Etruria, to Rome, by Quintus Pictor, | Known INHABIT, 291           |
| 23 Solar quadrants introduced,   | Nameless NEW BASE, 290       |
| 24 Mirrors in silver invented by Praxiteles,                             | Narrow NEW LIFE, 288         |
| 25 Silver money first coined at Rome,                                    | Null UNSHIP, 269             |
| 26 Hour glass invented in Alexandria,                                    | New shaped NURSE, 240        |
| 27 Burning mirror invented by Archimedes,                                | Naked INDIAN, 212            |
| 28 First fabricating of glass,   | Novel NOSES, 200             |
| 29 First library founded at Rome,  | Noble WOODCHUCK, 167         |
| 30 Brass invented,   | Mossy THRUSH, 146            |
| 31 Paper invented in China,  | Metalic TASSEL, 105          |
| 32 Rhetoric first taught at Rome,  | Mean FIG, 87                 |
| 33 Blister plasters invented,  | Mimic CHEESE, 60             |
| 34 Julian year, regulated by Cæsar,                                      | Marble ROLL, 45              |
| 35 Apple trees brought from Syria and Africa into Italy,                 | Small BEE, 9                 |
|  | A. C.                        |
| 36 Vulgate edition of the bible discovered,                              | Missionary NATIVE, 218       |
| 37 Porcelain invented in China,  | Mock ANCHOR, 274             |
| 38 Water-Mills invented by Belisarius,                                   | Moving LOW LILY, 555         |
| 39 Sugar first mentioned by Paul Eginetta, a physician,                  | Maple CHANNEL, 625           |
| 40 Writing pens first made from quills,                                  | Rosy JIM LEE, 635            |
| 41 Stone buildings introduced into England, by Bennet, a monk,           | Red JACK HOUSE, 670          |
| 42 Couriers or posts invented by Charlemagne,                            | Running EFFUSIVE, 808        |
| 43 Arabic figures invented,  | Roman FATHOM, 813            |
| 44 Lanterns invented by king Alfred,                                     | Rare FOPS, 890               |
| 45 High towers first erected to churches,                                | Real DISEASES, 1000          |



- |   |                                       |
|---|---------------------------------------|
| 46 Musical notes invented by Guy and Aretin,  | <i>Wretched DESIGNED</i> , 1021       |
| 47 Heraldry originated,   | <i>Ragged TWO DISEASE</i> , 1100      |
| 48 Distillation first practised,  | <i>Roving DEAD LOSS</i> , 1150        |
| 49 Glass windows first used in England,   | <i>Ripe DEATH FUSS</i> , 1180         |
| 50 Chimneys built in England,   | <i>Lazy DENHAM SHOW</i> , 1236        |
| 51 Leaden pipes for conveying water, invented,                                      | <i>Little DUN LINE</i> , 1252         |
| 52 Magic lanterns invented by Roger Bacon,  | <i>Lean STING BEES</i> , 1290         |
| 53 Tallow candles first used,   | <i>Luminous STING BEES</i> , 1290     |
| 54 Fulminating powder invented by Roger Bacon,                                      | <i>Large STING BEES</i> , 1290        |
| 55 Spectacles invented by Spina,  | <i>Loyal TIN PIPE</i> , 1299          |
| 56 Windmills invented,  | <i>Lashed up TIN PIPE</i> , 1299      |
| 57 Alum discovered in Syria,  | <i>Lucky DUMB ASSES</i> , 1300        |
| 48 Paper, made of Linen,  | <i>Lively DUMB SON</i> , 1302         |
| 59 Gunpowder invented,  | <i>Liberty TAME MUSS</i> , 1330       |
| 60 Canon invented,  | <i>Chosen TAME MUSS</i> , 1330        |
| 61 Woollen cloths first made in England;  | <i>Shot DIM MADE</i> , 1331           |
| 62 Painting in oil colors,  | <i>Shining TORTOISE</i> , 1410        |
| 63 Muskets used in England,   | <i>Gem THRONED</i> , 1421             |
| 64 Pumps invented,  | <i>Cheerless DOOR NAIL</i> , 1425     |
| 65 Printing invented,   | <i>Shallow WATER RAT</i> , 1441       |
| 66 Wood cuts invented,  | <i>Judge OUTRAGEOUS</i> , 1460        |
| 67 Engraving on copper,   | <i>Chalk OUTRAGEOUS</i> , 1460        |
| 68 Almanacks first published in Buda,   | <i>Shivered DEAR CHASE</i> , 1460     |
| 69 Printing introduced into England by Caxton,                                      | <i>Cheap DOOR CASE</i> , 1470         |
| 70 Watches invented at Nuremberg,   | <i>Costly DARK KEY</i> , 1477         |
| 71 Tobacco discovered in St. Domingo,   | <i>Quiet TAR BEACH</i> , 1496         |
| 72 Shillings first coined in England,   | <i>Cunning HEEDLESSLY</i> , 1505      |
| 73 Stops in Literature introduced,  | <i>Common IDLENESS</i> , 1520         |
| 74 Spinning-wheel invented at Brunswick,  | <i>Queer TALL MOSS</i> , 1530         |
| 75 Pins invented,   | <i>Clothes DELIRIUM</i> , 1543        |
| 76 Needles first made in England by an Indian,                                      | <i>Kitchen TALL REEL</i> , 1545       |
| 77 Sextant invented by Tycho Brahe,   | <i>Quick TALL LACE</i> , 1550         |
| 78 Coaches first used in England,   | <i>Quivering TALL FACE</i> , 1580     |
| 79 Telescopes invented by Jansen,   | <i>Capacious TALL PIECE</i> , 1590    |
| 80 Thermometers invented by Drehel,   | <i>Fuzzy JOYISHNESS</i> , 1620        |
| 81 Barometer invented by Torricelli,  | <i>Foot DUTCH NOTCH</i> , 1626        |
| 82 Regular posts established in London,   | <i>Fine DUTCH MEAL</i> , 1635         |
| 83 Coffee brought to England,   | <i>Famed TEACH to READ</i> , 1641     |
| 84 Air pumps invented,  | <i>Fair TEACH to LOVE</i> , 1650      |
| 85 Air guns invented by Guter,  | <i>Foolish DUTCH LEACH</i> , 1656     |
| 86 Pendulums for clocks invented,   | <i>Fashionable DUTCH LEACH</i> , 1656 |
| 87 Spring pocket watches invented by Dr. Hook,                                      | <i>Vigorous DUTCH LEAVE</i> , 1658    |
| 88 Engines to extinguish fires,   | <i>Vivid DUTCH CHIME</i> , 1663       |
| 89 Bayonets invented at Bayonne,  | <i>Vaporous DUTCH CASE</i> , 1670     |
| 90 Telegraphs invented,   | <i>Passable WHITISH FOG</i> , 1687    |
| 91 Georgium Sidus discovered by Herschell,  | <i>Beautiful DOG FIGHT</i> , 1781     |
| 92 Stereotype printing invented,  | <i>Bending DOG FLY</i> , 1785         |
| 93 Sunday schools established in Yorkshire,   | <i>Bemoaning TALK of a FOP</i> , 1789 |
| 94 Galvanism, 1767—its extraordinary effects on animals discovered by Mrs. Galvani, | <i>Bright TALK of a FOP</i> , 1789    |
| 95 Vaccination discovered by experimenting on criminals,                            | <i>Blunt COW BEEF</i> , 1798          |
| 96 Planet Ceres discovered by Piazzi,   | <i>Patched TOUGH SIGHT</i> , 1801     |
| 97 Pallas discovered by Olbers,   | <i>Begging TOUGH SIGHT</i> , 1801     |
| 98 Life boats invented,   | <i>Befitting TOUGH SIGN</i> , 1802    |
| 99 Planet Juno discovered by Harding,   | <i>Poppy TOUGH SEER</i> , 1804        |
| 100 Vesta discovered by Olbers,   | <i>Decisive TOUGH SACK</i> , 1807     |



## BIOGRAPHY.

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“The proper study of mankind is man.”

NOTE.—The *indicating phrase* should first be articulated, and then translated into figures, assigning the two right hand figures to the age; the figures to the left give the year in which the person died.

We shall first show the convenient application of the system, in a few specimens, to the *incidents* in the *life*, as well as to the deaths and ages of illustrious men.

### DEATHS AND AGES OF THE SIGNERS OF THE DECLARATION OF INDEPENDENCE.

|                       |                                    |
|-----------------------|------------------------------------|
| NEW HAMPSHIRE.        |                                    |
| 1 Josiah Bartlett,    | TIE up a CABLE CAGE, 1795 76       |
| 2 William Whipple,    | DECK the VALE with a LILY, 1785 55 |
| 3 Matthew Thornton,   | TOUGH SUM for a FOP, 1803 89       |
| MASSACHUSETTS.        |                                    |
| 4 John Hancock,       | THICK BEAM in a LEDGE, 1793 56     |
| 5 Samuel Adams,       | TOUGH SUM to FOOT, 1803 81         |
| 6 John Adams,         | DEFY NO AGE for a POET, 1826 91    |
| 7 Robert Treat Paine, | DEVOTER to FAME, 1814 83           |
| 8 Elbridge Gerry,     | DEVOTER to the WHIGS, 1814 70      |
| RHODE ISLAND.         |                                    |
| 9 Stephen Hopkins,    | THICK VEIL on the CAVE, 1785 78    |
| 10 William Ellery,    | ADVANCE on the GAME, 1820 73       |
| CONNECTICUT.          |                                    |
| 11 Roger Sherman,     | THICK BEAM for a CANE, 1793 72     |
| 12 Samuel Huntington, | CABBAGE in a CHAIR, 1796 64        |
| 13 William Williams,  | DEVOTED to his FOES, 1811 80       |
| 14 Oliver Wolcott,    | TOOK a BOOK and an AXE, 1797 70    |
| NEW YORK.             |                                    |
| 15 William Floyd,     | FOND of a FIG, 1821 87             |
| 16 Philip Livingston, | TOOK COFFEE in JUNE, 1778 62       |
| 17 Francis Lewis,     | TOUGH SUM for a FOP, 1803 89       |
| 18 Lewis Morris,      | TAKE a BONE for a CANE, 1792 72    |
| NEW JERSEY.           |                                    |
| 19 Richard Stockton,  | TAKE to the FIGHT, ALAS, 1781 50   |
| 20 John Witherspoon,  | TOOK a POOR GUN, 1794 72           |
| 21 Francis Hopkinson, | COPED with a LION, 1721 52         |
| 22 John Hart,         | TAKE the FOES in a GALE, 1780 75   |
| 23 Abraham Clark,     | KEEPER of a CHIEF, 1794 68         |
| PENNSYLVANIA.         |                                    |
| 24 Robert Morris,     | TOUGH SEIGE to JOIN, 1806 62       |
| 25 Benjamin Rush,     | TOUGH TIME for a CHIEF, 1813 68    |



|                                     |                                   |
|-------------------------------------|-----------------------------------|
| 26 Benjamin Franklin,               | COPIOUS FIRE, 1790 84             |
| 27 John Morton,                     | THICK CAKE of LIME, 1777 53       |
| 28 George Clymer,                   | FATHOM the CORE, 1813 74          |
| 29 James Smith,                     | TOUGH SEIGE for a GAME, 1806 73   |
| 30 George Taylor,                   | GIFT in JULY, 1781 65             |
| 31 James Wilson,                    | THICK PUFF at LILY, 1791 55       |
| 32 George Ross,                     | THICK PAPER BAG, 1799 49          |
| DELAWARE.                           |                                   |
| 33 Cæsar Rodney,                    | THICK FUMY LIME, 1783 53          |
| 34 George Reed,                     | THICK BEEF on SHORE, 1798 64      |
| 35 Thomas McKean,                   | TOUGH THICK FAN, 1817 82          |
| MARYLAND.                           |                                   |
| 36 Samuel Chase,                    | TOUGH and TIDY GOOSE, 1811 70     |
| 37 Thomas Stone,                    | THICK FOG RARE, 1787 44           |
| 38 Charles Carroll,                 | FOEMAN to a BULLY, 1832 95        |
| VIRGINIA.                           |                                   |
| 39 George Wythe,                    | TOUGH SEIGE with a COUGH, 1806 78 |
| 40 Richard Henry Lee,               | KEEPER with a CHAIN, 1594 62      |
| 41 Thomas Jefferson,                | DEFY a NEW AGE for FAME, 1826 83  |
| 42 Benjamin Harrison,               | TEACUPS, 1790                     |
| 43 Thomas Nelson, Jr.,              | THICK FOAM of LIME, 1783 53       |
| 44 Francis Lightfoot Lee,           | COFFIN on the ROOF, 1782 48       |
| 45 Carter Braxton,                  | THICK PACK of SHOT, 1797 61       |
| NORTH CAROLINA.                     |                                   |
| 46 William Hooper,                  | THICK BEES on a ROOF, 1790 48     |
| 47 Joseph Hewes,                    | KICKAPOO of ARABIA, 1779 49       |
| 48 John Penn,                       | THICK FIFE for a RAKE, 1788 47    |
| SOUTH CAROLINA.                     |                                   |
| 49 Edward Rutledge,                 | VICES in the LIGHT, 1800 51       |
| 50 Thomas Hayward, Jr.,             | DEFACE a BOY is a SHAME, 1809 63  |
| 51 Thomas Lynch, lost at sea,       | THICK CUP on a MOUSE, 1779 30     |
| 52 Arthur Middleton,                | THICK FOG is RARE, 1787 44        |
| GEORGIA.                            |                                   |
| 53 Button Gwinnett, shot in a duel, | THICK COCK on a RAIL, 1777 45     |
| 54 Lyman Hall,                      | COPIOUS SHIP, 1790 69             |
| 55 George Walton,                   | OFFICER on SHORE, 1804 64         |

## DEATHS AND AGES OF PRESIDENTS OF THE UNITED STATES.

|                                                                                   |                                              |
|-----------------------------------------------------------------------------------|----------------------------------------------|
| 1 George Washington, died at Mt. Vernon 14th day of December,                     | TAKE the POPE by a SHOCK, 1799 67            |
| 2 John Adams, died at Quincy, 4th July,                                           | DEFY NO AGE for a POET, 1826 91              |
| 3 Thomas Jefferson, died on the 4th of July,                                      | DEFY NO AGE for FAME, 1826 83                |
| 4 James Madison, died on the 28th of June,                                        | DEFAME the AGE by a VOYAGE, 1136 86          |
| 5 James Monroe, died in New York city on the 4th of July,                         | DEFAMED the GAME, 1831 73                    |
| 6 William Henry Harrison, 9th President, died at Washington, on the 4th of April, | FEARED a SHOWY FOE, 1841 68                  |
| 7 Andrew Jackson, 7th President, died at Nashville, Tenn., June 8th,              |                                              |
| Having finished his destiny on earth, was ready to                                | DIE without FEAR to LOOK at the FOE, 1845 78 |



## DEATHS AND AGES OF MEN RENOWNED IN AMERICAN HISTORY.

### JOHN QUINCY ADAMS.

- Born in Braintree, Mass., July 11th, Took a JOKE, 1767  
 Went to France with his father, at 11 years of age, *New* ATTACK of a COUGH, 1778  
 Returned to America in the summer of *Modern* Took a CAP, 1779  
 Embarks for England with his father, in November, *Rich* Took a CAB, 1779  
 Went with the Hon. Francis Dana, Minister to Russia, as his private secretary, in July, *Long* TALK of FATE, 1781  
 He returned through Sweden, Denmark, Hamburg and Bremen to Holland, *Chief* TALK of FAME, 1783  
 to meet his father, *Curious* Took a FILE, 1785  
 He returned home and entered Harvard University, *Fine* Took OFF a COW, 1787  
 Leaves College, and enters the office of Chief Justice Parsons, Newburyport, *Bold* ATTACK a BEAR, 1794  
 At the age of 33, he was appointed by Washington, Minister to Netherlands, *Dozing* DEVISED, 1801  
 Returned to America, being recalled by his father, *Tidy* ADVISE NOW, 1802  
 Elected to the Senate of Massachusetts, *Tiny* TOUGH SUM, 1803  
 Elected United States Senator, *Tame* TOUGH SIEGE, 1806  
 Chosen professor of Rhetoric and Oratory in Harvard University, *Daring* TOUGH SOUP, 1809  
 Appointed Minister to Russia by Mr. Madison, *Tall* TOUGH DECK, 1817  
 He was called home by Mr. Monroe, and appointed Secretary of State, *Dutch* DIVINELY, 1825  
 Inaugurated President of the United States, *Decorated* DEAF MUTE, 1831  
 After having served out his term as President, he was elected a member of Congress from the 12th District in Massachusetts, from which District, and from the 8th, under the new apportionment, he has been successively returned to the present time, 1846,
- 1 Gen. John Stark, died at Manchester, N. H., 8th of May, TOUGH NUN and a BEAR, 1822 94
  - 2 David Brainard, Missionary to the Indians, died at Northampton, Mass., 9th of Oct. THICK ROCK to NAP, 1747 29
  - 3 Robert Fulton, died at New York on the 24th of February, FATAL LOSS, 1815 50
  - 4 William Pinkney died at Washington on the 25th of February, DEFINE a NEW LIFE, 1822 58
  - 5 Capt. John Smith, (whose life was saved by Pocahontas,) died in London, DASHY and MIGHTY LAD, 1631 51
  - 6 Gen. Anthony Wayne, died at a military post on the shores of Lake Erie, THICK BEACH WAS LAID, 1796 51
  - 7 Gen. Richard Montgomery, fell at Quebec on the 31st of December. THICK GALE a MILE, 1775 35
  - 8 Gen. Joseph Warren, fell at the battle of Bunker Hill, 17th June, DUG to KILL the MOB, 1775 49
  - 9 Gen. Israel Putnam, died the 19th of May, THICK as BEES with a CANE, 1790 72
  - 10 Gen. Lafayette, died in France, DEFAMER NOT GAG, 1834 77
  - 11 Gen. Francis Marion, TAKE a PLEDGE at HOME, 1795 63
  - 12 Roger Williams, CHIEF MOVER, 1683 84



- |                                                                                                                                                              |                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| 13 William Penn,                                                                                                                                             | ACTIVE CREW, 1718 74                 |
| 14 Commodore Perry died in the West Indies,                                                                                                                  | FANCY MILL, 1820 35                  |
| 15 James Otis, a popular orator, killed by lightning,                                                                                                        | QUICKEN the WORK, 1772 47            |
| 16 John Jay, (Chief Justice,)                                                                                                                                | FINE BEHAVIOR, 1829 84               |
| 17 Dr. Edward A. Holyoke,                                                                                                                                    | FINE and APT HOST, 1829 101          |
| 18 Alexander Hamilton,                                                                                                                                       | OFFICER at WORK, 1804 47             |
| 19 Gen. Nathaniel Greene,                                                                                                                                    | GAVE the ALARM, 1785 43              |
| 20 Stephen Girard, died in Philadelphia, worth from 12 to \$15,000,000.                                                                                      |                                      |
|                                                                                                                                                              | TOUGH MAN ON a VOYAGE, 1732 86       |
| 21 Rev. Jonathan Edwards,                                                                                                                                    | EQUALLY FILIAL, 1758 55              |
| 22 Daniel Boon,                                                                                                                                              | TOUGH NUN without FEAR, 1822 84      |
| 23 Tecumseh, a brave Indian warrior,                                                                                                                         | TOUGH to DIE in a MERRY MAY, 1813 43 |
| 24 Rev. William E. Channing,                                                                                                                                 | DIVER for the NATION, 1842 62        |
| 25 Joseph Story, an eminent Jurist,                                                                                                                          | DEFY a ROYAL JUDGE, 1845 66          |
| 26 Rev. Charles T. Torrey, died in the Maryland Penitentiary, to which<br>he had been condemned for assisting slaves who were fleeing from<br>their masters, | DIVERGE from a MUMMY, 1846 33        |

## EDWARD EVERETT, A SCHOLAR AND STATESMAN.

- |                                                   |                          |
|---------------------------------------------------|--------------------------|
| Born in Dorchester, Mass.,                        | THICK PEAR, 1794         |
| Graduated at Harvard university,                  | TOUGH and TIDY, 1811     |
| Became pastor of Brattle Street Church, Boston,   | TOUGH TIME, 1813         |
| Elected to a professorship in Harvard University, | DEVOUTLY, 1815           |
| Commenced the tour of Europe the same year,       | DEVOUTLY, 1815           |
| Became editor of the North American Review,       | DEFIANCE, 1820           |
| Elected U. S. Representative in Congress,         | DEFAMER, 1834            |
| Elected Governor of Massachusetts,                | TOUGH MEAL, 1835         |
| Minister to England,                              | to prevent FRAUD, 1841   |
| Inaugurated President of Harvard University,      | DEFY a RED LION, 1841 62 |

DEATHS AND AGES OF CELEBRATED MEN LIVING IN  
DIFFERENT AGES OF THE WORLD.

- |                                                   |                                  |
|---------------------------------------------------|----------------------------------|
| Alexander the Great,                              | MEAN WAR MAN, 324 32             |
| Hannibal, of Carthage,                            | DEFAME a JAIL, 183 65            |
| Julius Cæsar,                                     | RARE EULOGY, 44 56               |
| Mahomet,                                          | WATCHMAN of OCEAN, 632 62        |
| Galileo, of Florence,                             | TEACH of ORION and FELL, 1642 85 |
| Columbus,                                         | TALL SAGE in JAIL, 1506 65       |
| Lorenzo de Medici, Florence, an author and ruler, | RAPINE WAS RARE, 1492 44         |
| Fernando Cortez, conqueror of Mexico,             | TALL HERO ON a CUSHION, 1547 62  |
| Michael Angelo, an Italian sculptor and painter,  | DULL SHEER FOP, 1564 89          |
| Tycho Brahe, an astronomer of Sweden,             | CHASTE AS a LILY, 1601 55        |
| William Shakspeare, an English poet,              | TWO EDGED JULIAN, 1616 52        |
| John Milton, an English poet,                     | DUTCH QUEER JUDGE, 1674 66       |
| John Locke, a great English philosopher,          | WAX ORGAN, 1704 72               |
| Joseph Addison, an English poet and critic,       | QUIET HAPPY WORK, 1719 47        |
| Peter the Great, of Russia,                       | THICK NAIL in a LOOM, 1725 53    |
| Charles Rollin, a French historian,               | DECORATE the FACE, 1741 80       |
| Alexander Pope, an English poet,                  | A GAY and RARE EULOGY, 1744 56   |
| Edward Young, an English poet,                    | COACH LIVERY, 1765 84            |
| Emanuel Swedenburg, founder of a sect,            | TALK of GAIN and FAME, 1772 83   |
| Samuel Johnson, an English lexicographer,         | THICK FIERY QUILL, 1784 75       |
| Linnæus, of Sweden, a botanist,                   | TOOK a FOE to VIEW GOD, 1788 71  |



|                                                               |                                  |
|---------------------------------------------------------------|----------------------------------|
| Buffon, an English naturalist,                                | COUGH at FIFTY, 1788 81          |
| John Wesley, an English divine,                               | THICK BOAT and FIFE, 1791 88     |
| Richard Arkwright, an English machinist,                      | A CAB and NEW CHAISE, 1792 60    |
| Robert Burns, a Scottish poet,                                | TOUGH BOOK and MUG, 1797 37      |
| Edmund Burke, an orator and statesman,                        | A GAY BUCK for a JOKE, 1797 67   |
| William Cowper, an English poet,                              | VICES of the SHOP, 1800 69       |
| Robert Emmet, an Irish patriot,                               | A TOUGH SEAM of WAX, 1803 70     |
| Thaddeus Kosciusko, a Polish patriot,                         | FOUGHT with CAUTION, 1817 62     |
| William Herschell, an English astronomer,                     | DEAF NUN with FEAR, 1822 84      |
| Adam Clarke, an English divine,                               | A VAIN NATION, 1822 62           |
| Marco Bozzaris, a Grecian patriot,                            | VENOM to the ARMY, 1823 43       |
| Lord Byron, an English poet,                                  | FINER IMAGE, 1824 36             |
| Cuvier, a French geologist,                                   | TOUGH MAN for a JAM, 1832 63     |
| Walter Scott, a Scotch novelist and poet,                     | TOUGH MAN for a SHOT, 1832 61    |
| Dr. Spurzheim, the German Phrenologist,                       | TOUGH MAN for a LASH, 1832 56    |
| William Wilberforce, an English philanthropist and statesman, | A TOUGH MUMMY in a CASE, 1833 70 |
| Mrs. Hemans, an English poetess,                              | FEMALE HEROINE, 1835 42          |
| Thomas Campbell, an English poet,                             | TOUGH RARE JOKE, 1844 67         |

### REMARKABLE EVENTS IN THE LIFE OF NAPOLEON.

|                                                                  |                                         |
|------------------------------------------------------------------|-----------------------------------------|
| 1 Made General at the seige of Toulon.                           | TOOK OPIUM, 1793 .                      |
| 2 Defeated the Parisians.                                        | <i>New</i> THICK POWER, 1794            |
| 3 Sailed for Egypt.                                              | <i>Modern</i> ATTACK on a BEY Foe, 1798 |
| 4 Returned from Egypt.                                           | <i>Rich</i> THICK PIPE, 1799            |
| 5 Declared First Consul.                                         | <i>Long</i> THICK PIPE, 1799            |
| 6 Declared Emperor.                                              | <i>Chief</i> ADVISER, 1804              |
| 7 Declared King of Italy.                                        | <i>Curious</i> TOUGH SOIL, 1805         |
| 8 Marriage with Josephine dissolved.                             | <i>Fine</i> DEVICE for PAY, 1809        |
| 9 Married Maria Louisa.                                          | <i>Boldly</i> DIVIDE US, 1810           |
| 10 Abdicates the throne.                                         | <i>Dozing</i> DEFY a TORY, 1814         |
| 11 Arrived at Elba.                                              | <i>Tidy</i> DIVIDER, 1814               |
| 12 Enters Paris.                                                 | <i>Tiny</i> DEVOUTLY, 1815              |
| 13 Lost the battle of Waterloo.                                  | <i>Tame</i> DEVOUTLY, 1815              |
| 14 At St. Helena.                                                | <i>Daring</i> DEVOUTLY, 1815            |
| 15 Died at St. Helena.                                           | <i>Tall</i> DIVINE ITALIAN, 1821-52     |
| 16 Exhumed at St. Helena, and interred in Paris with great pomp. | <i>Dutch</i> from the DEEP ROSE, 1840   |

### BATTLES OF NAPOLEON.

|                             |                                   |
|-----------------------------|-----------------------------------|
| 1 Battle of Lodi, May 11,   | THICK BEACH, 1796                 |
| 2 ——— Castiglione, Aug. 3,  | <i>New</i> THICK BEACH, 1796      |
| 3 ——— Arcola, Nov. 16,      | <i>Modern</i> THICK BEACH, 1796   |
| 4 ——— Embabe, July 21,      | <i>Rich</i> THICK BEEF, 1798      |
| 5 ——— Marengo, June 15,     | <i>Long</i> TWO FACES, 1800       |
| 6 ——— Hohenlinden, Dec. 8,  | <i>Chief</i> TWO FACES, 1800      |
| 7 ——— Alexandria, March 22, | <i>Curious</i> DEVISED, 1801      |
| 8 ——— Austerlitz, Dec. 2,   | <i>Fine</i> TOUGH SOUL, 1805      |
| 9 ——— Jena, Oct. 14,        | <i>Bold</i> TOUGH SIEGE, 1806     |
| 10 ——— Eglau, Feb. 3,       | <i>Dozing</i> TOUGH WHISKEY, 1807 |
| 11 ——— Friedland, June 14,  | <i>Tidy</i> TOUGH WHISKEY, 1807   |
| 12 ——— Vimeria, August 21,  | <i>Tiny</i> DIVISE a Foe, 1808    |
| 13 ——— Corunna, Jan. 16,    | <i>Tame</i> TOUGH SUP, 1809       |



|                               |                                   |
|-------------------------------|-----------------------------------|
| 14 Battle of Essling, May 22, | <i>Daring TOUGH SUP,</i> 1809     |
| 15 ——— Wagram, July 6,        | <i>Tall TOUGH SUP,</i> 1809       |
| 16 ——— Borodino, Sept. 7,     | <i>Dutch DEFEATING,</i> 1812      |
| 17 ——— Lutzen, May 1,         | <i>Decorated TOUGH TIME,</i> 1813 |
| 18 ——— Bautzen, May 20,       | <i>Tough TOUGH TIME,</i> 1813     |
| 19 ——— Vittoria, June 21,     | <i>Tabby TOUGH TIME,</i> 1813     |
| 20 ——— Dresden, August 28,    | <i>Nice TOUGH TIME,</i> 1813      |
| 21 ——— Leipsic, October 18,   | <i>Noted DEFEAT HIM,</i> 1813     |
| 22 ——— Montmartre, March 30,  | <i>Known TOUGH DEAR,</i> 1814     |
| 23 ——— Waterloo, June 18,     | <i>Nameless DEVOUT LAW,</i> 1815  |

### REMARKABLE INSTANCES OF LONGEVITY.

|                                                                                                                                              |                                                    |          |
|----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|----------|
| 1 Galour McCrain, of the island of Java, the oldest man on record for upwards of 3000 years, who died in the reign of Charles I., and was no | <i>DOUGH-FACE,</i>                                 | 180      |
| 2 Thomas Parr, of Shropshire, Eng, died on the 16th of November,                                                                             | <i>ISHMAEL NOT ITALIAN,</i>                        | 1635 152 |
| 3 Henry Jenkins, of Yorkshire, Eng, died December 8th,                                                                                       | <i>DUTCH JEW'S TOY SHOP,</i>                       | 1670 169 |
| 4 Margaret Scott, of Delkeith,                                                                                                               | <i>TALK and MOVE THINLY,</i>                       | 1738 125 |
| 5 John Mount, Scotland, died February,                                                                                                       | <i>THICK JUDGE with a TORCH,</i>                   | 1766 146 |
| 6 Francis Conciest, of Yorkshire,                                                                                                            | <i>TALK of a GAY CHIEF ALAS,</i>                   | 1568 150 |
| 7 Eleonora Spicer, of Virginia,                                                                                                              | <i>THICK CANE in a TENT,</i>                       | 1773 121 |
| 8 Louisa Truxo, of South America, was living in 1780, aged,                                                                                  | <i>FAMED,</i>                                      | 175      |
| 9 Wm. Ellis, of Liverpool, died 16th of August,                                                                                              | <i>THICK FACE in ATOMS,</i>                        | 1780 130 |
| 10 John Jacobs*, of Mount Jura, in France,                                                                                                   | <i>TALK of a BASE DANDY,</i>                       | 1790 121 |
| 11 Matthew Tait, of Ayrshire, died on the 12th of February,                                                                                  | <i>THICK BONE in the ATHENEUM,</i>                 | 1792 123 |
| 12 John Bancock, a farmer in Devonshire, was alive in 1777, and was then aged,                                                               | <i>ADMIRE,</i>                                     | 134      |
| 13 Rev. Benj. Harvey, a clergyman of Herkimer County, N. Y., appeared in a Baptist Convention at Brooklyn, May, 1846, aged                   | <i>His life should by some able man be EDITED,</i> | 111      |

### CURIOUS NUMBERS.

|                                                                                    |                                              |         |
|------------------------------------------------------------------------------------|----------------------------------------------|---------|
| 1 How many grains are contained in a bushel of wheat?                              | <i>Ans.—ANALOGY of an EASY SWISS,</i>        | 256,000 |
| 2 How many bones are there in the human frame?                                     |                                              |         |
| 3 How many in each hand?                                                           | <i>Ans.—ENOUGH,</i>                          | 28      |
| 4 What is the pressure of air on every square inch?                                | <i>Ans.—It is equal to 15 (TALL) pounds,</i> | 15      |
| 5 How many pounds of air does Buffon calculate that a middling sized man sustains? | <i>Ans.—RAISE an EASY SWISS,</i>             | 40,000  |
| 6 How many feet long may a grain of silver be extended?                            | <i>RECESS,</i>                               | 400     |
| 7 Which is the longest day of the year?                                            | <i>Ans.—21st (NOTED) day of June.</i>        |         |

\* He travelled from the top of his native mountain in the middle of summer, to Versailles, to return thanks to the National Assembly, for their vote of freedom to him and his countrymen from the Feudal yoke. He was received by the Assembly with great respect, indulged with a chair, and directed to keep his hat on, lest he should take cold.



- 8 Which is the shortest day. *Ans.*—21st (NOTED) day of December.  
 9 How many books are there in the Old Testament? *Ans.*—MAY BE, 39  
 10 How many chapters? *Ans.*—PUNY BOY, 929  
 11 How many verses? *Ans.*—NUMB WINTER, 23,214  
 12 How many words? *Ans.*—LABAN and REHOBOAM, 592,483  
 13 How many letters? *Ans.*—ONE CONVEYED SIZES, 2,728,000  
 14 How many books in the New Testament? *Ans.*—ONEGA, 27  
 15 How many chapters? *Ans.*—NEW AGES, 260  
 16 How many verses? *Ans.*—GAY PLOUGH BOY, 7,959  
 17 How many words? STIFF TIN LOOM, 181,253  
 18 How many letters? *Ans.*—TAME FOE TO MOVE US, 138,380  
 19 Which is the middle chapter, and the shortest, in the Bible?  
*Ans.*—The 117th (STOUT KEY) Psalm.  
 20 Which is the middle verse in the Bible?  
*Ans.*—The 8th (FINE) verse of the 118th (AUDITIVE) Psalm.  
 21 Which is the shortest verse in the Bible?  
*Ans.*—St. John's Gospel, 11th (TIDY) chapter, and 35th (SMALL) verse.  
 22 Which verse in the Bible has all the letters of the Alphabet in it?  
*Ans.*—Ezra, the 7th (CURIOUS) chapter, and 21st (NOTED) verse.  
 23 What two chapters in the Old Testament are precisely alike.  
*Ans.*—2d book of Kings, 19th (TYPE) chapter, and the 37th (MOCK) chapter of Isaiah.  
 24 How many persons are born and die every hour?  
*Ans.*—MICE of a SIZE, 3,000

NOTE 1.—The learner will, doubtless, often be troubled to see any possible connection between the *indicating words*, and the facts for which they stand for offigures; but as he repeatedly draws upon the ingenious resource of his own mind, he will find the means growing more abundant to construct a sentence that will make apparent incongruities give place to that, which will be made to appear very appropriate.

But should there be some stubborn cases, the pupil should feel himself at full liberty to make new *indicating words*, which should first be done on a slate, or slip of paper, and then placed with a pencil or pen, on the margin of the page, which is left amply wide for that purpose.

When errors are found in the *indicating words*, (which have crept into this work from the hasty manner in which the proof has been read,) the pupil should at once, displace them with right words, for which a fair compensation will be found in the mental labor.

NOTE 2.—After most of *Part First* of this book was printed, we received a work from New York, by "Pliny Miles, Esq., Corresponding Member of the New York Historical Society," entitled, "AMERICAN PHRENO-MNEMOTECHNY."

Like Prof. Gouraud, to whom he gives the credit of having been "his pupil," he has nothing to do with *symbols*, and confines his work exclusively to several applications of the *figure alphabet*. From this work, as also from Gouraud's, we have enriched the section entitled "deaths and ages of celebrated men, living in different ages of the world," by introducing several distinguished men, whose names were not in the collection we had previously arranged for this chapter.



## PART SECOND.

---

"Lulled in the countless chambers of the brain,  
Our thoughts are linked by many a hidden chain;  
Awake but one, and lo! what myraids rise,  
Each stamps *its image* as the other flies."

HAVING attended to our *figure alphabet*, and its application to numbers, on several branches of useful knowledge, we shall now see how far *rules* can be made available in mnemonizing *words* and *topics* found in catalogues, nomenclatures, technicalities, prose and poetry.

The means we have for *remembering* whatever we *see* or *hear*, is great or small, weak or strong, just in proportion to the *strength* of the *impression* it makes on the mind. All power of *recollection*, therefore, may be resolved into *the vividness of an impression*. Our inquiry then ought to be directed to the surest method of deriving the most *vivid impression* of *all* that we wish to retain.

Most writers\* on the art of memory, whose works have come to our knowledge, have recognized the power which is to be derived from LOCALITY and ASSOCIATION combined, in making *vivid impressions* on our retentive faculties. [See 8th page of the Introduction.]

The advantages to be derived to the intellect generally, and to the *retentive faculties* in particular, in the increase of their elasticity and strength, by practicing on a system of localizing our thoughts in PLACES, (familiarized for that purpose,) and by associating ideas which have no form, such as love, pride, malice, or any other set of ideas, with *objects of sense* (symbols,) is known only to those who *attend* to it.

In confirmation of this fact, we will subjoin an extract from an article which appeared in the Monthly Magazine (Eng.) for September, 1807, over the signature of 'Common Sense.'

"Any person who wishes to try an experiment on the power of association, need only make use of the succession of rooms, closets, staircases, landing places, and other remarkable spots or divisions of his own house, with all the parts of which he may be supposed to be very

\* Excepting Prof. Gouraud, and those who belong to his school. Prof. Miles, in his "Phreno-Mnemotechny," passes over Localities in silence, both of whom attend only to the application of the *Figure Alphabet*.



familiar. Let him apply any word or any idea to the several parts of the house, in any determined order of their succession, and he will find it almost impossible, in recalling the same order of the parts of the house, not to associate the idea or word which he had previously annexed to each part. Thus for example, a person may learn the succession of the kings of England in ten minutes, by annexing the names of each succeeding monarch to the successive rooms, closets, and principal parts of his own house, beginning at the upper story, and regularly descending; or, at the lower story, and regularly ascending.

“Any other permanent and familiar class of objects, will in general, answer the purpose better than the rooms of the house. I was myself educated in the vicinity of Oxford street; and streets running out of that street north and south, (beginning at Charles street, Soho square, and proceeding to Dean street, Chapel street, and so on to Park lane, and down on the other side to Rathbone place, and Hanway yard,) are the permanent and familiar set of objects which I make use of for my own purpose of successive association. The counties in England, the kingdoms and the countries throughout the world, the villages, and and other objects on a great road, or the streets of a city, are all well suited to this business of association; and either of them may be taken indifferently by various persons according to their acquaintance with them. The greater the variety of ideas connected with this set of objects, which may be called the *associating key*, the more easy and the more certain is the power of recollection.

“If I do not hazard a charge of egotism, I shall mention, as illustrative facts, that by this new art I once committed to memory, in a single morning, the whole of the propositions contained in the three first books of Euclid, and with such perfection, that I could for years afterwards specify the number of the book on hearing the proposition named, and could recite the proposition on hearing the number and the book; and I have frequently, in mixed companies, repeated backwards and forwards from fifty to an hundred unconnected words, which have been but once called over to me. I may also add, to prove the simplicity of the plan, that I taught two of my own children to repeat fifty unconnected words in a first lesson, of not more than half an hour’s continuance.”

In providing a convenient field of LOCALITIES, we shall introduce the two rooms, as divided into one hundred ‘compartments,’ by Feinagle—in which we shall *locate* 100 *objects of sense*, which will be used as *prompters* and *symbols* in a variety of applications, as will be seen in the following pages.



## 100 PROMPTERS AND SYMBOLS.

In the following list of prompters and symbols it will be noticed that they consist of an adjective, (the qualifying word,) and noun, the *name* of some *thing*—and that the adjective begins with the *articulation*, the numerical value of which points out the numerical *order* of the symbol, and the *locality* in the room, to which it belongs. Thus, T in Stout Gig, is 1, assigning the Gig to the *first* PLACE; N in New Cricket is 2, which assigns the Cricket to two's PLACE. When number 10 is reached, it will require two *articulations* to indicate the *numerical* order; thus, in Dozing Chair, D Z, 10—assigning the Chair to ten's PLACE, and so on. (See diagrams of the two Rooms.)

## LIST OF PROMPTORS AND SYMBOLS.

- |                      |                      |                       |
|----------------------|----------------------|-----------------------|
| 1 Stout Gig.         | 35 Small Cloak,      | 68 Shivered Calico.   |
| 2 New Cricket.       | 36 Missionary Man.   | 69 Cheap Wheat.       |
| 3 Modern Urn.        | 37 Mock Diadem.      | 70 Costly Mt. Auburn. |
| 4 Rich Banner.       | 38 Moving Tumbler.   | 71 Quiet Tomb.        |
| 5 Long Girdle.       | 39 Maple Apple.      | 62 Cunning Squirrel.  |
| 6 Chief Judge.       | 40 Rosy Tobacco.     | 73 Common Deluge.     |
| 7 Curious Dog.       | 41 Red Trumpet.      | 74 Queer Mouse.       |
| 8 Fine Cane.         | 42 Running Pony.     | 75 Clothes Basket.    |
| 9 Bold Puma.         | 43 Roman Groom.      | 76 Kitchen Room.      |
| 10 Dozing Chair.     | 44 Rare Spool.       | 77 Quick Tiger.       |
| 11 Tidy Quail.       | 45 Real Shoe.        | 78 Quivering Lily.    |
| 12 Tiny Quack.       | 46 Wretched Fence.   | 79 Capacious Asia.    |
| 13 Tame Parrot.      | 47 Ragged Net.       | 80 Fuzzy Palm-leaf.   |
| 14 Daring Lion.      | 48 Roving Army.      | 81 Foot Organ.        |
| 15 Tall Broom.       | 49 Ripe Oyster.      | 82 Fancy Comb.        |
| 16 Dutch Barrel.     | 50 Lazy Camel.       | 83 Famed Mt. Tabor.   |
| 17 Decorated Church. | 51 Little Watch.     | 84 Fair Jew.          |
| 18 Tough Jug.        | 52 Lean Elephant.    | 85 Foolish Peacock.   |
| 19 Tabby Cat.        | 53 Luminous Lamp.    | 86 Fashionable Sofa.  |
| 20 Nice Game.        | 54 Large Drum.       | 87 Vigorous Crane.    |
| 21 Noted Bear.       | 55 Loyal Tour.       | 88 Vivid Water.       |
| 22 Known Bottle.     | 56 Lashed up Coach.  | 89 Vaporous Umbrella. |
| 23 Nameless Brush.   | 57 Lucky Lark.       | 90 Passable Ledge.    |
| 24 Narrow Musket.    | 58 Lively Fife.      | 91 Beautiful Rose.    |
| 25 Null Horn.        | 59 Liberty Cap.      | 92 Bending Grain.     |
| 26 New-shaped Loom.  | 60 Chosen Mirror.    | 93 Bemoaning Lamb.    |
| 27 Naked Ladder.     | 61 Shot Eagle.       | 94 Bright Fire.       |
| 28 Novel Goldfinch.  | 62 Shining Blue-Jay. | 95 Blunt Awl.         |
| 29 Noble House.      | 63 Gem Book.         | 96 Patched Rug.       |
| 30 Mossy Boat.       | 64 Cheerless Nun.    | 97 Begging Widow.     |
| 31 Metallic Spoon.   | 65 Shallow Freedom.  | 98 Befitting Crown.   |
| 32 Mean Guitar.      | 66 Judge Moor.       | 99 Poppy Blossom.     |
| 33 Mimic Wheel.      | 67 Chalk Pail.       | 100 Decisive Wire.    |
| 34 Marble Bench.     |                      |                       |



### METHOD OF COMMITTING THE PROMPTERS AND SYMBOLS, BY ESTABLISHING FICTITIOUS RE- LATIONS BETWEEN THEM.



The foregoing symbols must be made perfectly familiar. It is from *familiarity* that the *power* which they confer in memorizing, can be derived. A fundamental principle in memorizing by symbols, is to transfer new and invisible ideas, or anything of *difficult recollection*, to another, *perfectly familiar* set of ideas or symbols, which should be *objects of sense*, and therefore of *easy recollection*,—if the *relation be well established* between the new idea and the familiar one, (the symbol,) then the old idea will *prevent us from missing to recollect the new idea*, which might otherwise be of very difficult recollection.

For the sake then, of making our promptors and symbols perfectly familiar, we shall adopt the following method of learning them.

We will first divide them into ten series, giving to each series a name, which shall correspond in sound to their *numerical* order. The first series, embracing the nine digits, we shall head with 0, (zero.) The series which commences with the *tenth* symbol will be 1, the 20th, 2, the 30th, 3, and so on. To these figures we shall assign a personification which shall be *similar in sound*. Thus, for 0, (zero) *Hero*; for 1, *Wanderer*; for 2, *Tooth extractor*; for 3, *Tree planter*; for 4, *Fortune teller*; for 5, *Fifer*; for 6, *Sexton*; for 7, *Seaman*; for 8, *Hatter*; for 9, *Neighbor*.

We will then *establish a relation* between the symbols, and these personifications, which will hereafter be called MEMORIZERS, so that the symbol and prompters both can be remembered in their *order*, even without translating the adjective, or prompter, into figures, thus—

The HERO stept into his *Stout Gig*, placed his feet on a *New Cricket*, set by his side a *Modern Urn*, and rode off like a *Chief Judge*; his *Curious Dog* followed, having in his mouth a *Fine Cane*, and holding up his head like a *Bold Puma*.

A WANDERER rose from his *Dozing Chair*, gave chase to a *Tidy Quail*, and met a *Tiny Quack*, who had a *Tame Parrot*, pursuing a *Daring Lion*, having in his hand a *Tall Broom*, with which he drove him against a *Dutch Barrel*, and rolled it against a *Decorated Church*, and broke a *Tough Jug*, and frightened up a *Tabby Cat*.

A TOOTH EXTRACTOR, wanting some *Nice Game*, went in pursuit of a *Noted Bear*; to carry some water with him, he took a well *Known Bottle*, on the nose of which he tied a *Nameless Brush*, shouldered his



*Narrow Musket* on which he hung his *Nullifying Horn*, and passing by a large *New-shaped Loom*, against which leaned a *Naked Ladder*, from the top of which he shot a *Novel Goldfinch*, and returned to his *Noble House*.

A *TREE PLANTER* stepped into his *Mossy Boat*, and commenced playing with a *Metallic Spoon* on a *Mean Guitar*, which made a noise like a *Mimic Wheel*; He then took his seat on a *Marble Bench*, laid by his side a *Small Cloak*, and commenced conversing with a *Missionary Man* about a *Mock Diadem*, which had on it a *Moving Tumbler*, containing a *Maple Apple*.

A *FORTUNE TELLER* wanting some *Rosy Tobacco*, blew his *Red Trumpet*, mounted his *Running Pony*, and rode off like a *Roman Groom*, with a *Rare Spool* in his *Real Shoe*; he then mounted a *Wretched Fence*, became entangled in a *Ragged Net*, and cried out for aid to a *Roving Army*, who were in pursuit of a *Ripe Oyster*.

A *FIFER* mounted his *Lazy Camel*, having in his pocket a *Little Watch*, and gave chase to a *Lean Elephant*; he then lit his *Luminous Lamp*, and began to play upon a *Large Drum*—and going on his *Loyal Tour*, ran against a *Lashed-up Coach*, started up a *Lucky Lark*, broke his *Lively Fife*, and lost his *Liberty Cap*.

A *SEXTON* stood before his *Chosen Mirror*, on one corner of which was the picture of a *Shot Eagle*, on the other a shining *Blue-jay* reading a *Gem Book* about a *Cheerless Nun*, who obtained a *Shallow Freedom* by the aid of *Judge Moore*, who had a *Chalk Pail*, dressed in *Shivered Calico*, sowing *Cheap Wheat*.

A *SEAMAN* went to *Costly Mt. Auburn*, to look at a *Quiet Tomb*, where he saw a *Cunning Squirrel* playing with a *Queer Mouse*, which he caught in a *Clôthes Basket*, and took it to a *Kitchen Room*, and put it with a *Quick Tiger*, and fed them with a *Quivering Lily*, which came from *Capacious Asia*.

A *HATTER* put on his *Fuzzy Palm-leaf*, took his *Foot Organ*, the top of which resembled a *Fancy Comb*, and went to *Famed Mt. Tabor*, where he met a *Fair Jew*, who had a *Foolish Peacock*, sitting on a *Fashionable Sofa*, by the side of a *Vigorous Crane*, drinking *Vivid Water*, covered with a *Vaperous Umbrella*.

A *NEIGHBOR* sitting on a *Passable Ledge*, looking at a *Beautiful Rose*, which grew in the *Bending Grain*, saw a *Bemoaning Lamb*, scorched with a *Bright Fire*; returning home, he took a *Blunt Awl*, threw it upon a *Patched Rug*, which belonged to a *Begging Widow*, and hit a *Befitting Crown*, on which lay a *Poppy Blossom*, fastened with a *Decisive Wire*.

NOTE.—Each pupil may feel at full liberty to establish relations differently, making such sentences as will best suit his own taste. But the foregoing relations, carefully read over a few times, will place the symbols completely at his control.

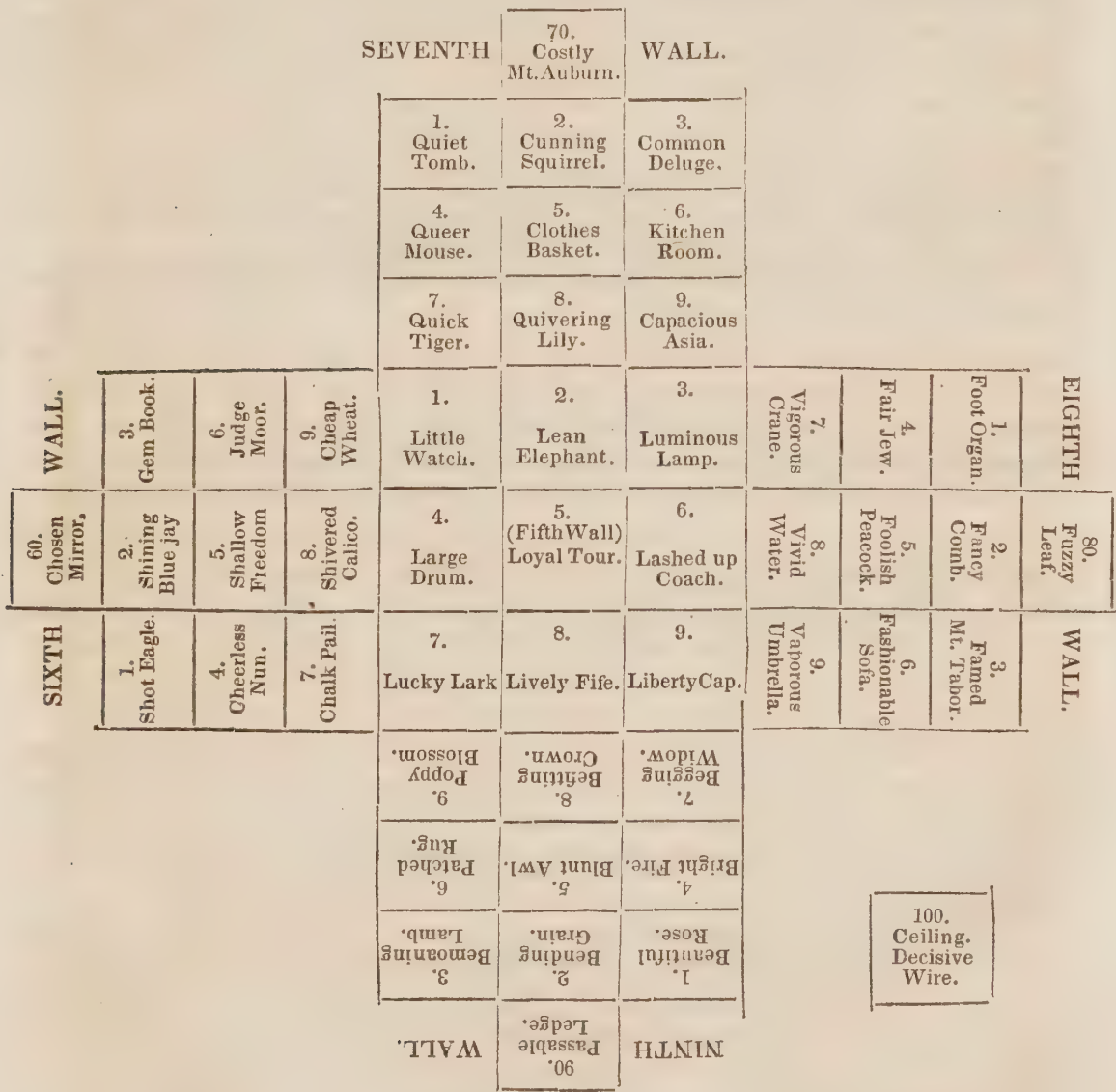


In committing the 100 towns, and all the succeeding sections, the pupil should seek some point of analogy, or *similarity of sound*, by which he may establish a relation between the symbol and the fact or name to be remembered. For example: if I wish to remember that Philadelphia is the second city in population, I will either *locate* the NEW CRICKET in some place in that city, or seek some historical rem-

|                            |  |  |                        |  |  |                                          |  |  |
|----------------------------|--|--|------------------------|--|--|------------------------------------------|--|--|
| WALL.                      |  |  | 20.<br>Nice Game.      |  |  | WALL.                                    |  |  |
| 10.<br>Dozing<br>Chair.    |  |  | 3.<br>Tame<br>Parrot.  |  |  | 1.<br>Noted Bear.                        |  |  |
| 2.<br>Tiny<br>Quack.       |  |  | 6.<br>Dutch<br>Barrel. |  |  | 2.<br>Known<br>Bottle.                   |  |  |
| 5.<br>Tall Broom.          |  |  | 9.<br>Tabby Cat.       |  |  | 3.<br>Nameless<br>Brush.                 |  |  |
| 8.<br>Tough Jug.           |  |  |                        |  |  | 5.<br>Null Horn.                         |  |  |
| 1.<br>Tiny Quail.          |  |  |                        |  |  | 6.<br>New shaped<br>Loom.                |  |  |
| 4.<br>Daring<br>Lion.      |  |  |                        |  |  | 8.<br>Novel<br>Goldfinch.                |  |  |
| 7.<br>Decorated<br>Church. |  |  |                        |  |  | 9.<br>Noble<br>House.                    |  |  |
|                            |  |  |                        |  |  | 1.<br>Stout Glig.                        |  |  |
|                            |  |  |                        |  |  | 2.<br>New<br>Cricket.                    |  |  |
|                            |  |  |                        |  |  | 3.<br>Modern<br>Urn.                     |  |  |
|                            |  |  |                        |  |  | 4.<br>Rich<br>Banner.                    |  |  |
|                            |  |  |                        |  |  | 5.<br>LongGirdle.<br>(Floor.)<br>0 Hero. |  |  |
|                            |  |  |                        |  |  | 6.<br>Chief<br>Judge.                    |  |  |
|                            |  |  |                        |  |  | 8.<br>Moving<br>Tumbler.                 |  |  |
|                            |  |  |                        |  |  | 30.<br>Mossy<br>Boat.                    |  |  |
|                            |  |  |                        |  |  | 1.<br>Metallic<br>Spoon.                 |  |  |
|                            |  |  |                        |  |  | 4.<br>Marble<br>Bench.                   |  |  |
|                            |  |  |                        |  |  | 5.<br>Small<br>Cloak.                    |  |  |
|                            |  |  |                        |  |  | 6.<br>Mimic<br>Wheel.                    |  |  |
|                            |  |  |                        |  |  | 9.<br>Maple<br>Apple.                    |  |  |
|                            |  |  |                        |  |  | 6.<br>Missionary<br>Man.                 |  |  |
|                            |  |  |                        |  |  | 3.<br>WALL.                              |  |  |
|                            |  |  |                        |  |  | 6.<br>Bold Puma.                         |  |  |
|                            |  |  |                        |  |  | 7.<br>Ragged<br>Net.                     |  |  |
|                            |  |  |                        |  |  | 8.<br>Roving<br>Army.                    |  |  |
|                            |  |  |                        |  |  | 4.<br>Rare Spoon.                        |  |  |
|                            |  |  |                        |  |  | 5.<br>Real Shoe.                         |  |  |
|                            |  |  |                        |  |  | 2.<br>Red<br>Trumpet.                    |  |  |
|                            |  |  |                        |  |  | 3.<br>Running<br>Pony.                   |  |  |
|                            |  |  |                        |  |  | 9.<br>Ripe Oyster.                       |  |  |
|                            |  |  |                        |  |  | 6.<br>Wretched<br>Fence.                 |  |  |
|                            |  |  |                        |  |  | 3.<br>Roman<br>Groom.                    |  |  |
|                            |  |  |                        |  |  | 40.<br>Tobacco.                          |  |  |
|                            |  |  |                        |  |  | 4.<br>Kosy                               |  |  |
|                            |  |  |                        |  |  | FOURTH                                   |  |  |
|                            |  |  |                        |  |  | 55.<br>Ceiling.<br>Lazy<br>Camel.        |  |  |



iniscence about the place, from which I can draw a *picture* upon my retentive faculties. Take New York, as an instance, which was named from the Duke of York. I will then see the Duke of York riding through the city in a *Gr*, taking notice of the immensity of its improvements ; or, if it be Philadelphia, I will see Wm. Penn, its venerable founder, seated on a *CRICKET*, drawing the plan of the city ; or Baltimore, I will place the *URN* on Lord Baltimore's table, after whom the city was named. I will unfurl the *BANNER* on the State House at New Orleans, to commemorate the victorious battle, fought by General Jackson, in our last war with Great Britain, on the 8th of January, 1815—thus marking it with the 4th *symbol*, as the 4th city in population : and so on.





## EXPLANATION OF THE ROOMS.

Here are two rooms ; one is intended to be regarded as directly over the other. The first should be called the Lower, and the second the Upper Room, on the floor, four walls, and ceiling of which, are 50 *places*.

The learner should *familiarize* the position of the 9 places and numbers on the floor. This he will do by observing that there are three rows of *places*, and three *places* in a row. It should be noticed that the 5th place comes in the centre. If the pupil will step upon this *place*, and point to the corner where the 1st *place* is situated, and then to the corner where the 9th is situated, and then ask himself, "How many are 1 and 5 and 9, the answer will be 15. In like manner he may point in four different directions, and get the same answer. When the position of the 9 *places* in the floor is clearly understood, the pupil will see the same number of *places* on the *same* position on each of the four walls, making in all 45 places. This will bring the fives, or 5th places, all directly opposite each other.

The pupil is to regard the rooms presented in the diagrams, with the walls in a prostrate condition. If he were to cut round the outlines of these walls with the point of a penknife, and raise them up so as to make a square room, and himself standing on the 8th place, with his face to the north, he would find the 9th place at his right on the floor, where he sees the Bold Puma located, and on his left will be the 1st *wall*, over which is a square, or strap, which comes upon the ceiling, which will be the 10th place. It will be particularly observed, that the 10th *place*, in which is located the Dozing Chair, is not *on* the 1st *wall*, but on the ceiling, directly over 12 ; the second *place* on the 1st *wall*, and that the 11th place in which the Tidy Quail is located, occupies the 1st place on the 1st *wall*. It will be further observed, that the first articulation or consonant sound in the numerical Adjectives, points out the locality, or *place* to which each symbol belongs on the floor, but when the 10th place is reached, it requires two articulations, hence *De Ze* in Dozing, and *Te De* in Tidy, for 10 and 11. The decimals therefore, 10, 20, 30, 40, will be found *over* each *wall*, and 50 in the centre of the ceiling, directly over 5 on the floor.

The 50th *place* in which the Lazy Camel is located, is the highest number in the *Lower Room*. The *Upper Room* is an exact pattern of the 1st one, with the exception, that the *floor* of the 2d Room is called the 5th *wall*, and the 6th comes directly over the 1st *wall* of the 1st Room. These 100 *places* must be made so *familiar* with one glance of thought, that they will stand in their order before the "mind's eye." This will be done, if the pupil will drill on them, in a few moments,



by asking himself, Where is the 29th *place*? the 15th? the 36th? the 48th? the 56th? the 62d? the 74th? the 80th? the 99th? It will be seen that the left hand figure answers for the *wall*, and the right hand figure for the *place*. Thus, the 29th place is on the 2d *wall* and the 9th *place*; the 15th is on the 1st wall, 5th place. The figures, therefore, in which a question is asked, contains the answer.

## CHRONOLOGICAL TABLE.

IN WHICH THE DAY OF THE WEEK IS DETERMINED WHEN THE DAY OF THE MONTH AND YEAR IS GIVEN—AND THE DAY OF THE MONTH, WHEN THE YEAR AND MONTH ARE KNOWN, WHICH SERVES AS A PERPETUAL ALMANAC.

### RULE.

1st. Set down the day of the month in which any event occurred.

2nd. The number *for* the month, each of which are as follows;

|                            |   |                        |   |
|----------------------------|---|------------------------|---|
| November, February, March, | 0 | October and January, - | 4 |
| June, - - - -              | 1 | May, - - - -           | 5 |
| September and December,    | 2 | August, - - - -        | 6 |
| April and July, - -        | 3 |                        |   |

3d. The number for the year will be found in the terminating articulation of each symbol. Thus, *le* in Girdle, *ne* in Cane, *se* in House, denote the *number* which answers to the year—the hundred symbols answering to the years of a century for two thousand years.

4th. Set down the number for the century, which are as follows:

|                      |   |                       |         |
|----------------------|---|-----------------------|---------|
| For the 1st Century, | 2 | For the 12th century, | 5       |
| 2d                   | 1 | 13th                  | 4       |
| 3d                   | 0 | 14th                  | 3       |
| 4th                  | 6 | 15th                  | 2       |
| 5th                  | 5 | 16th                  | 1       |
| 6th                  | 4 | 17th                  | 0 O. S. |
| 7th                  | 3 | 17th                  | 4 N. S. |
| 8th                  | 2 | 18th                  | 2       |
| 9th                  | 1 | 19th                  | 0       |
| 10th                 | 0 | 20th                  | 5       |
| 11th                 | 6 |                       |         |

Add these numbers together, and divide them by the number of the days in a week—7. If there be no remainder, the day of the week will be Saturday. If there is a remainder it will denote the day of the week corresponding to the number left.



## EXAMPLE.

The fourth day of . . 4  
 July, . . 3  
 1844,—44th symbol is Spool, . . 5  
 19th Century, . . 0

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7)12—5 rem. [*Thursday*.]

NOTE.—If the date falls on January or February of *Leap year*, the day of the week falls back to the preceding day. Thus, an event occurring on the 1st of January, 1844, will appear in figures to occur on the 2d. Every year that can be divided by 4 without a remainder, is leap year.

To find the day of the month, some day within a week of the time sought for must be *supposed*, and then proceed to prove by the foregoing rule, what day of the month the supposed day is, then reckon from that day to the present one, thus: I am writing this rule on the 8th day of June, 1846. If I were uncertain as to what day of the month it is, I might *suppose* it to be the 6th, for instance. I can at once determine whether it be the 6th by applying the rule, thus:

6 the day of the month supposed.  
 1 the number for the month,—June.  
 0 the terminating articulation in the 46th symbol—*Se* in Houses.  
 0 The number for the 19th century.

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7 the numbers added, and divided by 7,—0 remains.

And nothing remains, which proves that the 6th day was Saturday. If Saturday was the 6th, then to-day being Monday, is the eighth. Familiarity with the tables in this rule is necessary to make it available, and when *all parts* are familiarized, the process can be gone through with mentally much more rapidly than in any other way. The author does not trouble himself with an almanac from one year's end to another, to determine the day of the month, the rule being quite sufficient for that purpose.

NOTE.—The advantages of this rule to bankers, and all business men, who have frequent occasion to date their papers on a future given day, will be fully realized, especially if they do not wish them to fall due on the Sabbath, for the rule is correct to the end of the 20th century. And the gratification it sometimes affords, to be able to determine the day of the *week* on which certain events occurred in the history of past centuries, is also apparent.



## THE MEMORIZING OF ISOLATED WORDS.

ONE HUNDRED CITIES AND TOWNS IN THE UNITED STATES,  
ARRANGED IN THE ORDER OF THEIR POPULATION, ACCORD-  
ING TO THE CENSUS OF 1840.

Each town is to be memorized on the symbol of the same number, principally by locating the symbol *in* the town. The population of towns presents so much variation each year, that they are not introduced.

|                       |                         |                         |
|-----------------------|-------------------------|-------------------------|
| 1 New York, N. Y.     | 35 Poughkeepsie, N. Y.  | 68 Warwick, R. I.       |
| 2 Philadelphia, Pa.   | 36 Smithfield, R. I.    | 69 Portsmouth, Va.      |
| 3 Baltimore, Md.      | 37 Hartford, Ct.        | 70 Dover, N. H.         |
| 4 New Orleans, L. A.  | 38 Lynn, Mass.          | 71 Plattsburg, N. Y.    |
| 5 Boston, Mass.       | 39 Lockport, N. Y.      | 72 Augusta, Ga.         |
| 6 Cincinnati, O.      | 40 Detroit, Mich.       | 73 Lynchburg, Va.       |
| 7 Brooklyn, N. Y.     | 41 Roxbury, Mass.       | 74 Gloucester, Mass.    |
| 8 Albany, N. Y.       | 42 Nantucket, Mass.     | 75 Thomaston, Me.       |
| 9 Charleston, S. C.   | 43 Newburg N. Y.        | 76 Cleveland, O.        |
| 10 Washington, D. C.  | 44 New Brunswick, N. J. | 77 Dayton, O.           |
| 11 Providence, R. I.  | 45 Bangor, Me.          | 78 Nashua, N. H.        |
| 12 Louisville, Ky.    | 46 Alexandria, D. C.    | 79 Columbus, O.         |
| 13 Pittsburg, Pa.     | 47 Lancaster, Pa.       | 80 Harrisburg, Pa.      |
| 14 Lowell, Mass.      | 48 Reading, Pa.         | 81 Kingston, N. Y.      |
| 15 Rochester, N. Y.   | 49 Cambridge, Mass.     | 82 Rome, N. Y.          |
| 16 Richmond, Va.      | 50 Wilmington, Del.     | 83 Hudson, N. Y.        |
| 17 Troy, N. Y.        | 51 Newport, R. I.       | 84 Auburn, N. Y.        |
| 18 Buffalo, N. Y.     | 52 Portsmouth, N. H.    | 85 Canandaigua, N. Y.   |
| 19 Newark, N. J.      | 53 Wheeling, Va.        | 86 Ithaca, N. Y.        |
| 20 St. Louis, Mo.     | 54 Taunton, Mass.       | 87 Marblehead, Mass.    |
| 21 Portland, Me.      | 55 Patterson, N. J.     | 88 New London, Ct.      |
| 22 Salem, Mass.       | 56 Worcester, Mass.     | 89 Catskill, N. Y.      |
| 23 New Haven, Ct.     | 57 Norwich, Ct.         | 90 Augusta, Me.         |
| 24 Utica, N. Y.       | 58 Georgetown, D. C.    | 91 Plymouth, Mass.      |
| 25 New Bedford, Mass. | 59 Mt. Pleasant, N. Y.  | 92 Andover, Mass.       |
| 26 Mobile, Ala.       | 60 Middletown, Ct.      | 93 Steubenville, O.     |
| 27 Charlestown, Mass. | 61 Fredericktown, Md.   | 94 Hagarstown, Md.      |
| 28 Savannah, Ga.      | 62 Newburyport, Mass.   | 95 Bath, Me.            |
| 29 Petersburg, Va.    | 63 Seneca, Mass.        | 96 Syracuse, N. Y.      |
| 30 Salina, N. Y.      | 64 Lexington, Ky.       | 97 Williamsburg, N. Y.  |
| 31 Springfield, Mass. | 65 Nashville, Tenn.     | 98 Middleborough, Mass. |
| 32 Norfolk, Va.       | 66 Schenectady, N. Y.   | 99 Gardiner, Me.        |
| 33 Fishkill, N. Y.    | 67 Fall River, Mass.    | 100 Watertown, N. Y.    |
| 34 Alleghany, Pa.     |                         |                         |

## CAPITALS OF AMERICA AND EUROPE.

|                          |                            |                            |
|--------------------------|----------------------------|----------------------------|
| 1 Kingston, Cap. Canada. | 13 Santiago, Chili.        | 25 Munich, Bavaria.        |
| 2 Washington, U. S.      | 14 Buenos Ayres, La Plata. | 26 Berne, Switzerland.     |
| 3 Mexico, Mexico.        | 15 Stockholm, Sweden.      | 27 Paris, France.          |
| 4 St. Salvador, Gua.     | 16 Copenhagen, Denmark.    | 28 Madrid, Spain.          |
| 5 Bogota, New Grenada.   | 17 St. Petersburg, Russia. | 29 Lisbon, Portugal.       |
| 6 Caraccas, Venezuela.   | 18 Hanover, Hanover.       | 30 Turin, Sardinia.        |
| 7 Quito, Equador.        | 19 London, England.        | 31 Florence, Tuscany.      |
| 8 Lima, Peru.            | 20 Amsterdam, Holland.     | 32 Rome, Papal States.     |
| 9 Chuquisaca, Bolivia.   | 21 Brussels, Belgium.      | 33 Naples, Naples.         |
| 10 Rio Janeiro, Brazil.  | 22 Berlin, Prussia.        | 34 Vienna, Austria.        |
| 11 Assumption, Paraguay. | 23 Dresden, Saxony.        | 35 Constantinople, Turkey. |
| 12 Montevideo, Uruguay.  | 24 Stuttgart, Wurtemberg.  | 36 Athens, Greece.         |



## UNIVERSITIES AND COLLEGES IN THE UNITED STATES.

To be memorized in the same manner as the preceding section.

Should the student form an indicating word for the date of the founding of these institutions, the 1 thousand might be understood and not expressed.

|                                    |                      | <i>When founded.</i> |
|------------------------------------|----------------------|----------------------|
| 1 Bowdoin,                         | Brunswick, Me.       | Exam: COWPER, 1894   |
| 2 Waterville,                      | Waterville, Me.      | 1820                 |
| 3 Dartmouth,                       | Hanover, N. H.       | 1769                 |
| 4 University of Vermont,           | Burlington, Vt.      | 1791                 |
| 5 Middlebury, Vt.                  | Middlebury, Vt.      | 1800                 |
| 6 Norwich University,              | Norwich, Ct.         | 1834                 |
| 7 Harvard University,              | Cambridge, Mass.     | 1638                 |
| 8 Williams,                        | Williamstown, Mass.  | 1793                 |
| 9 Amherst,                         | Amherst, Mass.       | 1821                 |
| 10 Brown University,               | Providence, R. I.    | 1764                 |
| 11 Yale,                           | New Haven, Ct.       | 1700                 |
| 12 Washington, †                   | Hartford, Ct.        | 1824                 |
| 13 Wesleyan University,            | Middletown, Ct.      | 1831                 |
| 14 Columbia, ‡                     | New York, N. Y.      | 1854                 |
| 15 Union,                          | Schenectady, N. Y.   | 1795                 |
| 16 Hamilton.                       | Clinton, N. Y.       | 1812                 |
| 17 Hamilton Lit. and Theological,* | Hamilton, N. Y.      | 1819                 |
| 18 Geneva, †                       | Geneva, N. Y.        | 1123                 |
| 19 University of New York,         | New York, N. Y.      | 1831                 |
| 20 College of New Jersey,          | Princeton, N. J.     | 1746                 |
| 21 Rutgers,                        | New Brunswick, N. J. | 1770                 |
| 22 University of Pennsylvania.     | Philadelphia, Pa.    | 1755                 |
| 23 Dickinson, †                    | Carlisle, Pa.        | 1783                 |
| 24 Jefferson,                      | Canonsburg, Pa.      | 1802                 |
| 25 Washington,                     | Washington, Pa.      | 1806                 |
| 26 Alleghany, †                    | Meadville, Pa.       | 1815                 |
| 27 Pennsylvania,                   | Gettysburg, Pa.      | 1832                 |
| 28 Lafayette,                      | Easton, Pa.          | 1832                 |
| 29 Marshall,                       | Mercersburg, Pa.     | 1836                 |
| 30 Newark,                         | Newark, Del.         | 1833                 |
| 31 St. Johns,                      | Annapolis, Md.       | 1784                 |
| 32 St. Mary's, §                   | Baltimore, Md.       | 1799                 |
| 33 Mount St. Marys, §              | Emmetsburg, Md.      | 1830                 |
| 34 Georgetown, §                   | Georgetown, D. C.    | 1789                 |
| 35 Columbian,*                     | Washington, D. C.    | 1821                 |
| 36 William and Mary's, †           | Williamsburg, Va.    | 1693                 |
| 37 Hampden-Sidney,                 | Prince Ed. Co. Va.   | 1783                 |
| 38 Washington,                     | Lexington, Va.       | 1812                 |
| 39 University of Virginia,         | Charlottesville, Va. | 1819                 |
| 40 Randolph-Macon, †               | Boydton, Va.         | 1832                 |
| 41 Emory and Henry, †              | Glade Spring, Va.    | 1839                 |
| 42 Rector,*                        | Prouty Town, Va.     | 1839                 |
| 43 University of North Carolina.   | Chapel Hill, N. C.   | 1789                 |

REMARKS.—The Colleges marked thus (\*) are under the direction of the Baptists; thus (†) Episcopalians; thus (‡) Methodists; thus (§) Catholics.



|                                    |                        | <i>When founded.</i> |
|------------------------------------|------------------------|----------------------|
| 44 Davidson,                       | Mecklenburg Co. N. C.  | 1838                 |
| 45 Wake Forest,                    | Wake Forest, N. C.     | 1838                 |
| 46 Charleston,                     | Charleston, S. C.      | 1795                 |
| 47 South Carolina,                 | Columbia, S. C.        | 1804                 |
| 48 Franklin,                       | Athens, Ga.            | 1785                 |
| 49 Oglethorpe,                     | Midway, Ga.            | 1836                 |
| 50 Emory,†                         | Oxford, Ga.            | 1837                 |
| 51 Mercer University,*             | Penfield, Ga.          |                      |
| 52 Christ Col. and Episcopal inst. | Montpelier, Ga.        | 1839                 |
| 53 University of Alabama,          | Tuscaloosa, Ala.       | 1828                 |
| 54 La Grange,                      | La Grange, Ala.        | 1831                 |
| 55 Spring Hill,§                   | Spring Hill, Ala.      | 1830                 |
| 56 Centenary,                      | Brandon Springs, Miss. | 1841                 |
| 57 Oakland,                        | Oakland, Miss.         | 1831                 |
| 58 Louisiana,                      | Jackson, La.           | 1825                 |
| 59 Jefferson,                      | Bringiers, La.         | 1831                 |
| 60 St. Charles,§                   | Grand Coteau, La.      |                      |
| 61 Baton Rouge,                    | Baton Rouge, La.       | 1838                 |
| 62 Franklin,                       | Opelousas, La.         | 1839                 |
| 63 Greenville,                     | Greenville, Tenn.      | 1794                 |
| 64 Washington,                     | Washington Co. Tenn.   | 1794                 |
| 65 University of Nashville,        | Nashville, Tenn.       | 1806                 |
| 66 East Tennessee,                 | Knoxville, Tenn.       | 1807                 |
| 67 Jackson,                        | Near Columbia, Tenn.   | 1830                 |
| 68 Transylvania,                   | Lexington, Ky.         | 1798                 |
| 69 St. Josephs,§                   | Bardstown, Ky.         | 1819                 |
| 70 Centre,                         | Danville, Ky.          | 1822                 |
| 71 Augusta,†                       | Augusta, Ky.           | 1825                 |
| 72 Cumberland,                     | Princeton, Ky.         | 1825                 |
| 73 Georgetown,*                    | Georgetown, Ky.        | 1829                 |
| 74 Bacon,                          | Harrodsburg, Ky.       | 1836                 |
| 75 St. Mary's,§                    | Marion Co. Ky.         | 1837                 |
| 76 University of Ohio,             | Athens, Ohio,          | 1821                 |
| 77 Miami University,               | Oxford, Ohio,          | 1809                 |
| 78 Franklin,                       | New Athens, Ohio,      | 1825                 |
| 79 Western Reserve,                | Ravenna, Ohio,         | 1826                 |
| 80 Kenyon,†                        | Gambier, Ohio,         | 1826                 |
| 81 Granville,*                     | Granville, Ohio,       | 1832                 |
| 82 Marietta,                       | Marietta, Ohio,        | 1832                 |
| 83 Oberlin Institute,              | Oberlin, Ohio,         | 1834                 |
| 84 Cincinnati,                     | Cincinnati, Ohio,      | 1819                 |
| 85 Woodward,                       | Cincinnati, Ohio,      |                      |
| 86 St. Xavier College,§            | Cincinnati, Ohio,      | 1831                 |
| 87 Indiana,                        | Bloomington, Ind.      | 1827                 |
| 88 St. Gabriel's College,          | Vincennes, Ind.        |                      |
| 89 South Hanover,                  | South Hanover, Ind.    | 1829                 |
| 90 Wabash,                         | Crawfordsville, Ind.   | 1833                 |
| 91 Indiana Asbury University,§     | Crawfordsville, Ind.   | 1839                 |
| 92 Illinois,                       | Jacksonville, Ill.     | 1829                 |
| 93 Shurtleff,*                     | Upper Alton, Ill.      | 1835                 |
| 94 Mc. Kendree,                    | Lebanon, Ill.          | 1834                 |
| 95 Mc Donough,                     | Macomb, Ill.           | 1837                 |
| 96 University of St. Louis,§       | St. Louis, Mo.         | 1829                 |
| 97 Kemper College,†                | St. Louis, Mo.         |                      |



|                          |                     | <i>When founded.</i> |
|--------------------------|---------------------|----------------------|
| 98 St. Mary's,§          | Barrens, Mo.        | 1830                 |
| 99 Marion,               | Marion, Mo.         | 1831                 |
| 100 Missouri University, | Columbia, Mo.       | 1840                 |
| 101 St. Charles,§        | St. Charles, Mo.    | 1839                 |
| 102 Fayette,             | Fayette, Mo.        |                      |
| 103 Michigan University, | Ann Arbor, Mich.    | 1837                 |
| 104 Marshall,            | Marshall, Mich.     |                      |
| 105 St. Philip's,§       | Near Detroit, Mich. | 1839                 |

### NAMES OF THE ARTS AND SCIENCES AND TECHNICALITIES.

The following words are introduced here, not only for exercise in memorizing isolated words, but with the hope that their perusal may awaken a desire to know their *signification*, and to study their meaning in the sciences to which they relate:

Should the pupil desire at once to determine the signification of the terms and technicalities, he will find their meaning familiarly explained in Worcester's "*Sequel to the Spelling Book*," a cheap little school book, of greater worth than many school books of double its size. A common dictionary would hardly answer so good a purpose.

#### NAMES OF THE ARTS AND SCIENCES.

|                 |                 |                  |                 |
|-----------------|-----------------|------------------|-----------------|
| 1 Acoustics     | 20 Dialling     | 39 Jurisprudence | 58 Pharmacy     |
| 2 Aeronautics   | 21 Dynamics     | 40 Lithography   | 59 Philology    |
| 3 Agriculture   | 22 Electricity  | 41 Logic         | 60 Philosophy   |
| 4 Alchymy       | 23 Elocution    | 42 Magic         | 61 Physic       |
| 5 Algebra       | 24 Entomology   | 43 Magnetism     | 62 Physics      |
| 6 Anatomy       | 25 Ethics       | 44 Mathematics   | 63 Physiology   |
| 7 Archery       | 26 Etymology    | 45 Mechanics     | 64 Pneumatics   |
| 8 Architecture  | 27 Galvanism    | 46 Metaphysics   | 65 Politics     |
| 9 Arithmetic    | 28 Geography    | 47 Meteorology   | 66 Rhetoric     |
| 10 Astrology    | 29 Geology      | 48 Mineralogy    | 67 Sculpture    |
| 11 Astronomy    | 30 Geometry     | 49 Mnemonics     | 68 Statics      |
| 12 Book-keeping | 31 Geoponics    | 50 Music         | 69 Stenography  |
| 13 Botany       | 32 Grammar      | 51 Navigation    | 70 Surgery      |
| 14 Casuistry    | 33 Gymnastics   | 52 Optics        | 71 Tactics      |
| 15 Chemistry    | 34 Harmonics    | 53 Ornithology   | 72 Theology     |
| 16 Chirography  | 35 Horology     | 54 Orthoepey     | 73 Topography   |
| 17 Chronology   | 36 Horticulture | 55 Orthography   | 74 Trigonometry |
| 18 Craniology   | 37 Hydraulics   | 56 Osteology     | 75 Typography   |
| 19 Dialectics   | 38 Ichthyology  | 57 Pathology     | 76 Zoology      |

#### TECHNICAL WORDS, OR THOSE PECULIAR TO THE ARTS AND SCIENCES. NATURAL PHILOSOPHY.

|                 |                    |                |                |
|-----------------|--------------------|----------------|----------------|
| 77 Air gun      | 87 Extension       | 96 Lens        | 5 Piston       |
| 78 Air pump     | 88 Focus           | 97 Lever       | 6 Prism        |
| 79 Atmosphere   | 89 Force           | 98 Magnet      | 7 Projectile   |
| 80 Balloon      | 90 Goniometer      | 99 Micrometer  | 8 Pyrometer    |
| 81 Barometer    | 91 Gravity         | 100 Microscope | 9 Refraction   |
| 82 Cohesion     | 92 Hydrometer      | 1 Mirror       | 10 Repulsion   |
| 83 Dial         | 93 Impenetrability | 2 Momentum     | 11 Steelyard   |
| 84 Divisibility | 94 Inertia         | 3 Parachute    | 12 Telescope   |
| 85 Elasticity   | 95 Kaleidoscope    | 4 Penumbra     | 13 Theodolite  |
| 86 Equilibrium  |                    |                | 14 Thermometer |



CHEMISTRY.

|                   |                  |                    |                |
|-------------------|------------------|--------------------|----------------|
| 15 Acid           | 29 Detonation    | 42 Laboratory      | 55 Quicksilver |
| 16 Alcohol        | 30 Distillation  | 43 Lava            | 56 Radiation   |
| 17 Alembic        | 31 Ductility     | 44 Naphtha         | 57 Saturation  |
| 18 Alkali         | 32 Effervescence | 45 Nitre           | 58 Solution    |
| 19 Alloy          | 33 Ether         | 46 Nitrogen        | 59 Solvent     |
| 20 Antimony       | 34 Eudiometer    | 47 Oxyde           | 60 Stalactite  |
| 21 Blow-pipe      | 35 Evaporation   | 48 Oxygen          | 61 Steel       |
| 22 Brass          | 36 Fermentation  | 49 Pewter          | 62 Sublimation |
| 23 Calcination    | 37 Fossil        | 50 Phosphorus      | 63 Sulphur     |
| 24 Caloric        | 38 Fusion        | 51 Phosphorescence | 64 Sulphuret   |
| 25 Carbon         | 39 Gas           | 52 Plumbago        | 65 Tannin      |
| 26 Carbonate      | 40 Gasometer     | 53 Potash          | 66 Verdigris   |
| 27 Crucible       | 41 Granite       | 54 Pyrites         | 67 Vermilion   |
| 28 Crystalization |                  |                    | 68 Zinc        |

ASTRONOMY.

|                  |                  |               |              |
|------------------|------------------|---------------|--------------|
| 69 Aphelion      | 84 Ecliptic      | 99 Mercury    | 13 Phasis    |
| 70 Apogee        | 85 Elongation    | 200 Meridian  | 14 Planet    |
| 71 Axis          | 86 Epact         | 1 Meteor      | 15 Pleiades  |
| 72 Achronycal    | 87 Equator       | 2 Month       | 16 Pole      |
| 73 Apses         | 88 Equinox       | 3 Nadir       | 17 Penumbra  |
| 74 Bissextile    | 89 Earth         | 4 Nebulæ      | 18 Phases    |
| 75 Cancer        | 90 Galaxy        | 5 Nodes       | 19 Satellite |
| 76 Capricorn     | 91 Horizon       | 6 Occultation | 20 Solstice  |
| 77 Chronometer   | 92 Horologe      | 7 Orbit       | 21 Syzygy    |
| 78 Comet         | 93 Heaven        | 8 Orrery      | 22 Transit   |
| 79 Constellation | 94 Intercalation | 9 Observatory | 23 Uranus    |
| 80 Cynosure      | 95 Jupiter       | 10 Parallax   | 24 Zenith    |
| 81 Disk          | 96 Latitude      | 11 Perigee    | 25 Zodiac    |
| 82 Digit         | 97 Longitude     | 12 Perihelion | 26 Zone      |
| 83 Eclipse       | 98 Luminary      |               |              |

MATHEMATICS.

|                  |               |                  |                |
|------------------|---------------|------------------|----------------|
| 27 Angle         | 37 Diagonal   | 48 Hypothenuse   | 59 Quotient    |
| 28 Axiom         | 38 Diagram    | 49 Isosceles     | 60 Radius      |
| 29 Chord         | 39 Diameter   | 50 Multiple      | 61 Ratio       |
| 30 Circle        | 40 Digit      | 51 Multiplicand  | 62 Rectangle   |
| 31 Circumference | 41 Dividend   | 52 Numerator     | 63 Semicircle  |
| 32 Cube          | 42 Divisor    | 53 Octagon       | 64 Sextant     |
| 33 Decagon       | 43 Ellipse    | 54 Parallelogram | 65 Subtrahend  |
| 34 Degree        | 44 Fraction   | 55 Perimeter     | 66 Superficies |
| 35 Demonstration | 45 Globe      | 56 Perpendicular | 67 Tangent     |
| 36 Denominator   | 46 Hemisphere | 57 Polygon       | 68 Triangle    |
|                  | 47 Hexagon    | 58 Quadrant      |                |

RHETORIC AND GRAMMAR.

|               |               |                    |                |
|---------------|---------------|--------------------|----------------|
| 69 Allegory   | 77 Dipthong   | 85 Monosyllable    | 93 Simile      |
| 70 Antepenult | 78 Emphasis   | 86 Monotony        | 94 Spondee     |
| 71 Antithesis | 79 Hexameter  | 87 Paraphrase      | 95 Style       |
| 72 Apposition | 80 Hyperbole  | 88 Parenthesis     | 96 Syllable    |
| 73 Bombast    | 81 Metaphor   | 89 Pentameter      | 97 Synonyme    |
| 74 Cadence    | 82 Metaphrase | 90 Personification | 98 Tautology   |
| 75 Climax     | 83 Metathesis | 91 Polysyllable    | 99 Tetrameter  |
| 76 Dactyle    | 84 Metonymy   | 92 Punctuation     | 300 Triphthong |



## LITERATURE AND BELLES LETTRES.

- |                 |             |              |                  |
|-----------------|-------------|--------------|------------------|
| 1 Acrostic      | 10 Comedy   | 19 History   | 28 Prologue      |
| 2 Anagram       | 11 Dialect  | 20 Idiom     | 29 Prosody       |
| 3 Annals        | 12 Drama    | 21 Idyl      | 30 Psalm         |
| 4 Anthology     | 13 Eclogue  | 22 Monologue | 31 Rhyme         |
| 5 Aphorism      | 14 Epigram  | 23 Oration   | 32 Tragedy       |
| 6 Apophthegm    | 15 Epilogue | 24 Panegyric | 33 Tragicomedy   |
| 7 Autobiography | 16 Epitaph  | 25 Parody    | 34 Translation   |
| 8 Biography     | 17 Farce    | 26 Philipic  | 35 Versification |
| 9 Charade       | 18 Glossary | 27 Poem      | 36 Verse         |

## PHYSIC AND SURGERY.

- |               |                  |               |                |
|---------------|------------------|---------------|----------------|
| 37 Anodyne    | 53 Expectorants  | 69 Laudanum   | 85 Pleurisy    |
| 38 Antidote   | 54 Extensor      | 70 Lethargy   | 86 Quinzy      |
| 39 Artery     | 55 Fever         | 71 Ligament   | 87 Recipe      |
| 40 Asthma     | 56 Flexor        | 72 Luxation   | 88 Rheumatism  |
| 41 Calomel    | 57 Gangrene      | 73 Measles    | 89 Scrofula    |
| 42 Catarrh    | 58 Glottis       | 74 Medicament | 90 Spasm       |
| 43 Caustic    | 59 Gout          | 75 Metacarpus | 91 Systole     |
| 44 Clavicle   | 60 Hemorrhage    | 76 Narcotic   | 92 Tertian     |
| 45 Diaphragm  | 61 Hydrocephalus | 77 Nerves     | 93 Thorax      |
| 46 Diastole   | 62 Hydrophobia   | 78 Occiput    | 94 Tonics      |
| 47 Dispensary | 63 Influenza     | 79 Opiate     | 95 Tumor       |
| 48 Dropsy     | 64 Ipecacuanha   | 80 Opium      | 96 Ulcer       |
| 49 Dyspepsy   | 65 Jaundice      | 81 Panacea    | 97 Vaccination |
| 50 Emetic     | 66 King's evil   | 82 Paregoric  | 98 Varioloid   |
| 51 Dpilepsy   | 67 Lacteal       | 83 Plethora   | 99 Vein        |
| 52 Erysipelas | 68 Larynx        |               |                |

## LAW TERMS.

- |               |                 |               |               |
|---------------|-----------------|---------------|---------------|
| 1 Affidavit   | 15 Deposition   | 29 Inquest    | 43 Probate    |
| 2 Appeal      | 16 Distrain     | 30 Insolvency | 44 Quit claim |
| 3 Arbitration | 17 Duress       | 31 Judiciary  | 45 Replevin   |
| 4 Arrest      | 18 Endorsement  | 32 Larceny    | 46 Simony     |
| 5 Arson       | 19 Execution    | 33 Lawsuit    | 47 Summons    |
| 6 Bribery     | 20 Felony       | 34 Lease      | 48 Tenure     |
| 7 Burglary    | 21 Forgery      | 35 Legacy     | 49 Trespass   |
| 8 Chancery    | 22 Freehold     | 36 Libel      | 50 Tribunal   |
| 9 Charter     | 23 Guaranty     | 37 Litigation | 51 Usury      |
| 10 Citation   | 24 Hereditament | 38 Matricide  | 52 Verdict    |
| 11 Codicil    | 25 Homicide     | 39 Misnomer   | 53 Waif       |
| 12 Common law | 26 Impeachment  | 40 Mortgage   | 54 Warrant    |
| 13 Debit      | 27 Indenture    | 41 Oath       | 55 Warranty   |
| 14 Default    | 28 Indictment   | 42 Panel      |               |

## POLITICS.

- |                 |              |                  |                |
|-----------------|--------------|------------------|----------------|
| 56 Aristocracy  | 65 Diplomacy | 73 Exports       | 81 Negotiation |
| 57 Bulletin     | 66 Duties    | 74 Finance       | 82 Oligarchy   |
| 58 Cabinet      | 67 Edict     | 75 Franchise     | 83 Republic    |
| 59 Commonwealth | 68 Embargo   | 76 Imports       | 84 Revenue     |
| 60 Customs      | 69 Embassy   | 77 Incorporation | 85 Statute     |
| 61 Debenture    | 70 Enactment | 78 Jurisdiction  | 86 Tariff      |
| 62 Delegation   | 71 Exchequer | 79 Legislation   | 87 Tax         |
| 63 Democracy    | 72 Excise    | 80 Monarchy      | 88 Treaty      |
| 64 Despotism    |              |                  |                |



## MILITARY TERMS.

|               |                    |                  |             |
|---------------|--------------------|------------------|-------------|
| 89 Ambuscade  | 2 Bombardment      | 14 Flank         | 26 Ordnance |
| 90 Armament   | 3 Breastwork       | 15 Flanker       | 27 Outworks |
| 91 Armistice  | 4 Broadside        | 16 Fort          | 28 Palisado |
| 92 Armory     | 5 Camp             | 17 Fortification | 29 Parapet  |
| 93 Arsenal    | 6 Campaign         | 18 Fosse         | 30 Rampart  |
| 94 Artillery  | 7 Cannon           | 19 Furlough      | 31 Ration   |
| 95 Baggage    | 8 Cannonade        | 20 Garrison      | 32 Redoubt  |
| 96 Barrack    | 9 Capitulation     | 21 Incursion     | 33 Siege    |
| 97 Bastion    | 10 Cavalry         | 22 Infantry      | 34 Skirmish |
| 98 Battle     | 11 Circumvallation | 23 Intrenchment  | 35 Stockade |
| 99 Battlement | 12 Court-martial   | 24 Magazine      | 36 Trench   |
| 100 Blockade  | 13 Escalade        | 25 Mortar        | 37 Truce    |
| 1 Bomb        |                    |                  |             |

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 BOTANY.
 

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BEFORE mnemonic rules can be applied with advantage to Botany, *facts* and *terms* should be understood and committed to memory.

We have good authority for presuming that there are not less than sixty thousand *species* of plants in the vegetable world; 56,000 having been already discovered and described by Buffon, and other naturalists.

But we are now to know what is meant by *species*. This is necessary, in order to appreciate the immense labor of botanists in classifying and arranging these plants, and the immensity of the Creator's works in their production.

A *SPECIES* is 'one kind, similar to which, there are other kinds. Take the rose as an instance. The damask rose is a *species*—but we have the wild rose, the moss rose, the Burgundy rose, the French rose, and about fifty different kinds in all, each of which embrace many *varieties*. All these *species* form the rose family, or *genera*. A *GENERA* comprehends one or more *species*, grouped together on account of some resemblance in situation, proportion and connection of the organs which constitute the plant. Any one *species* of a genus may be regarded as a type, or example of the others. *Genera* are formed into *orders*, and *ORDERS* into *CLASSES*.

The system of Linnæus may be illustrated by the following comparison :

|                    |         |           |
|--------------------|---------|-----------|
| Individual persons | compose | Families, |
| Families           | "       | Towns,    |
| Towns              | "       | Counties, |
| Counties           | "       | States.   |



|                   |         |          |
|-------------------|---------|----------|
| Individual plants | compose | Species, |
| Species           | "       | Genera,  |
| Genera            | "       | Orders,  |
| Orders            | "       | Classes. |

When a botanist sees a plant, which he never saw before, and wishes to know its name and use, he proceeds as follows :

1. He takes the unknown flower in his hand, (no unknown plant can be ascertained without the flower) and compares its parts, with the description of each class, until he finds the class to which it belongs.

2. He then goes to the orders of that class, and finds its order in the same way.

3. Next he goes to the genera of that order, and reads their descriptions, until he finds the genus to which it belongs.

4. At last he looks over the species of that genus, until he finds the exact description of his plant.

5. Thus he finds the apple to be Class 12, Order 5, Genus *Pyrus*, Species *Malus*.

Thus, as individual persons are the real existences which make up a state, so are individual plants the real existences which make classes ; the words town and county, genus and order, being general terms, are used to designate certain circumstances of these men and plants.

We shall here present a list of Latin and Greek numerals, which it is necessary to commit to memory, in order to understand the names given to the classes and orders. It is not in botany alone that a knowledge of these numerals will be useful ; many words in our common language are compounded with them, as uniform, from *unus*, one ; *forma*, form ; octagon from *octo*, eight, &c.

## NUMERALS.

| <i>Latin.</i> |    | <i>Greek.</i>  |  | <i>Latin.</i> |      | <i>Greek.</i> |
|---------------|----|----------------|--|---------------|------|---------------|
| Unus,         | 1  | Monos, single. |  | Duodecem,     | 12   | Dodeka.       |
| Bis,          | 2  | Dis, twice.    |  | Tredecem,     | 13   | Decatreis.    |
| Tres,         | 3  | Treis.         |  | Quatuordecim, | 14   | Dekatetares.  |
| Quatuor,      | 4  | Tettares.      |  | Quindecim,    | 15   | Dekapente.    |
| Quinque,      | 5  | Pente.         |  | Sexdecim,     | 16   | Dekaex.       |
| Sex,          | 6  | Hex.           |  | Septemdecim,  | 17   | Dekaeptha.    |
| Septem,       | 7  | Hepta.         |  | Octodecim,    | 18   | Dekaocto.     |
| Octo,         | 8  | Octo.          |  | Novemdecim,   | 19   | Dekaennea.    |
| Novem,        | 9  | Ennea.         |  | Viginti,      | 20   | Eikosi.       |
| Decem,        | 10 | Deka.          |  | Multus,       | Many | Polus.        |
| Undecem,      | 12 | Endeca.        |  |               |      |               |

The Classes are founded upon distinctions observed in the STAMENS. All known plants are divided into twenty-one Classes.



CLASSES.

The first 12 classes are named by prefixing the Greek numerals to *andria*, which signifies stamen.

| No. | Name.         | Characteristic.                                               | General Characteristic.                       |
|-----|---------------|---------------------------------------------------------------|-----------------------------------------------|
| 1   | Mon-andria,   | 1 Stamen.                                                     | } Number of stamens.                          |
| 2   | Di-andria,    | 2 "                                                           |                                               |
| 3   | Tri-andria,   | 3 "                                                           |                                               |
| 4   | Tetr-andria,  | 4 "                                                           |                                               |
| 5   | Pent-andria,  | 5 "                                                           |                                               |
| 6   | Hex-andria,   | 6 "                                                           |                                               |
| 7   | Hept-andria,  | 7 "                                                           |                                               |
| 8   | Oct-andria,   | 8 "                                                           |                                               |
| 9   | Enne-andria,  | 9 "                                                           |                                               |
| 10  | Dec-andria,   | 10 "                                                          |                                               |
| 11  | Icos-andria,  | More than 10 stamens, situated on the <i>calyx</i> .          | } Number and position of stamens.             |
| 12  | Poly-andria,  | More than 10 stamens, situated on the <i>receptacle</i> .     |                                               |
| 13  | Di-dynamia,   | 2 stamens longer or more powerful than the other two.         | } Number and relative length of stamens.      |
| 14  | Tetra-dynamia | 4 stamens longer or more powerful than the other two.         |                                               |
| 15  | Mon-adelphia, | Stamens united by their filaments in one set.                 | } Stamens united by the filaments or anthers. |
| 16  | Dia-delphia,  | Stamens united by their filaments in two sets.                |                                               |
| 17  | Syn-genesia,  | 5 stamens united by the anthers— <i>flowers compound</i> .    |                                               |
| 18  | Gyn-andria,   | Stamens growing out of the pistil.                            | } Position of stamens relative to the pistil. |
| 19  | Mon-œcia,     | Stamens and pistils on separate corollas on the same plants.  |                                               |
| 20  | Di-œcia,      | Stamens and pistils on separate corollas on different plants. |                                               |
| 21  | Cryptogamia,  | Stamens and pistils invisible.                                | Mosses, fungi, &c.                            |

ORDERS.

The Orders of the first 12 Classes are founded upon the number of **PISTILS**, and are named by prefixing the Greek numerals to the word *gynia*, signifying pistil, viz.:

|                |                |                |
|----------------|----------------|----------------|
| 1 Mono-gynia,  | 5 Penta-gynia, | 9 Ennea-gynia, |
| 2 Di-gynia,    | 6 Hexa-gynia,  | 10 Deca-gynia, |
| 3 Tri-gynia,   | 7 Hepta-gynia, | 11 Poly-gynia. |
| 4 Tetra-gynia, | 8 Octo-gynia,  |                |

The Orders of the 13th Class are 2, viz.—1st, *Gymnospermia*, (seeds naked in the calyx;) 2d, *Angyospermia*, (seeds in a capsule.)

The Orders of the 14th Class are 2, viz.—1st, *Siliculosa*, (round pod;) 2d, *Siliquosa*, (long pod.)

The Orders of the 15th, 16th, 18th, 19th and 20th Classes, are founded on the *number of stamens*, and are named like the first 12 classes.



The Orders of the 17th Class are 5, viz.—1st, *Equalis* ; 2d, *Superflua* ; 3d, *Frustranea* ; 4th, *Necessaria* ; 5th, *Segregata*.

The Orders of the 21st Class are 6, viz.—1st, *Filices*, (ferns ; ) 2d, *Musci*, (Mosses ; ) 3d, *Hepaticæ*, (Liverworts ; ) 4th, *Algæ*, (Sea weeds ; ) 5th, *Lichenes*, (Lichens ; ) 6th, *Fungi*, (Mushrooms.)

#### CLASSES, ORDERS, GENERA, SPECIES, AND VARIETIES.

The arrangement and classification of plants according to the Linnæan system, having been explained, we shall proceed to apply mnemonic rules for memorizing the Classes, Orders and Varieties, of plants, which follow.

VARIETIES are not to be recognized by the botanist, so much as the gardener ; they do not come within his province, at least the method of procuring them.

But the gardeners of our own country have already been industrious in this department of their labor.

From a descriptive catalogue of Prince's Linnæan Botanic Garden, Flushing, Long Island, N. Y., we find a statement of the following *Varieties* cultivated in that garden, which can be memorized in a short time by the aid of the following *indicating words* :

#### VARIETIES.

|                   |                                |                                 |                             |
|-------------------|--------------------------------|---------------------------------|-----------------------------|
| 1 Apples,         | <i>Stout HOUR HAND</i> , 421   | 18 Figs,                        | <i>Tough DATE</i> , 11      |
| 2 Pears,          | <i>New MILLER</i> , 354        | 19 Pomegranates,                | <i>Tabby DOLL</i> , 15      |
| 3 Cherries,       | <i>Modern TUNNEL</i> , 125     | 20 Strawberries,                | <i>Nice JUDGE</i> , 66      |
| 4 Plums,          | <i>Rich DOWAGER</i> , 167      | 21 Honey suckle,                | <i>Noted ROOF</i> , 48      |
| 5 Peaches,        | <i>Long OUTFIT</i> , 181       | 22 Hardy Azalias,               | <i>Know MOOR</i> , 34       |
| 6 Nectarines,     | <i>Chief NUN</i> , 22          | 23 Chinese Azalias,             |                             |
| 7 Apricots,       | <i>Curious TYPE</i> , 19       |                                 | <i>Nameless MATE</i> , 31   |
| 8 Almonds,        | <i>Fine TUNE</i> , 12          | 24 Roses,                       | <i>Narrow DINGLE</i> , 1275 |
| 9 Quinces,        | <i>Bold ETHIOPIA</i> , 19      | 25 Peonies,                     | <i>Nullify DEISM</i> , 103  |
| 10 Mulberries,    | <i>Dozing DEER</i> , 14        | 26 Tree Peonies,                |                             |
| 11 Walnuts,       |                                |                                 | <i>New shaped WREN</i> , 42 |
| “ Chestnuts,      | <i>Tidy MEET</i> , 31          | 27 Carnations,                  | <i>Naked TRASH</i> , 146    |
| “ Filberts,       |                                | 28 Pinks,                       | <i>Novel EULOGY</i> , 56    |
| 12 Medlars,       |                                | 29 Chinese Chrysanthemum,       |                             |
| “ Persimons,      | <i>Tiny PEA</i> , 9            |                                 | <i>Noble OUTDONE</i> , 112  |
| “ Papaw,          |                                | 30 Iris, or Fleur de Lis,       |                             |
| 13 Grapes,        | <i>Tame ITALIAN</i> , 152      |                                 | <i>Mossy LEAF</i> , 58      |
| 14 Currants,      | <i>Daring MAN</i> , 32         | 31 Hemenopolis, or Daily Lilly, |                             |
| 15 Raspberries,   | <i>Tall MILL</i> , 35          |                                 | <i>Metallic DOLL</i> , 15   |
| 16 Gooseberries,  |                                | 32 Primrose, Polyanthus and     |                             |
|                   | <i>Dutch WOOD-SAWYER</i> , 104 | Cowslip,                        | <i>Mean NAME</i> , 23       |
| 17 Blackberries,  |                                | 33 Auriculæ.                    | <i>Mimic MOUSE</i> , 30     |
| “ Whortleberries, | <i>Decorated</i>               |                                 |                             |
| “ Barberries,     |                                |                                 |                             |
| “ Cranberries,    |                                | <i>TUB</i> , 19                 |                             |



## HERBACEOUS PERENNIAL FLOWERING PLANTS.

- |                                  |                              |     |                              |     |
|----------------------------------|------------------------------|-----|------------------------------|-----|
| 34 Violets,                      | <i>Marble DOLL</i> ,         | 15  | 37 Geraniums,                |     |
| 35 Varieties embracing the Acan- |                              |     | <i>Mock DEATH-WATCH</i> ,    | 116 |
| thus, and other classes,         |                              |     | 38 Chinese Mountain Laurels, |     |
|                                  | <i>Small HORIZON</i> ,       | 402 | <i>Moving MOUSE</i> ,        | 30  |
| 36 Medical and culinary plants,  |                              |     | <i>Maple LOSSES</i> ,        | 500 |
|                                  | <i>Missionary NEIGHBOR</i> , | 294 |                              |     |

## THE LANGUAGE OF FLOWERS, AND THEIR SENTIMENTS.

NOTE.—There is less difficulty in memorising the *hard names* of the *classes* and *orders*, than in remembering the class and order to which each of the plants belong. Even familiarity with the plants does not lessen the difficulty, unless the properties of the classes and orders are equally familiar. The following arrangement of the *adjectives* will greatly aid one in his *botanical* inquiries, and make new additions to the exquisite pleasure which is felt, in a walk through a flower garden, where the plants, with whose names he may be familiar, meet his eye, blooming in rich profusion.

It will be observed that there are *two* adjectives prefixed to the name of each plant—the *first* denotes the *CLASS*, and the *second* the *ORDER* to which the plant belongs. The plant, with the class, order and sentiment, should all be committed in one sentence. A numerical order will be preserved by calling up the corresponding symbol and not the adjective, *that* being here used for another purpose.

|                                         |                                                  |                   |
|-----------------------------------------|--------------------------------------------------|-------------------|
| 1 <i>Tabby</i> (19) and <i>Long</i> (5) | Amaranth, Immortality.                           | Class 19, Order 5 |
| 2 <i>Tiny</i> and <i>Tenacious</i>      | Anemone, Frailty.                                | 13 13             |
| 3 <i>Tabby</i> and <i>New</i>           | Aster, Beauty in retirement.                     | 19 2              |
| 4 <i>Decorated</i> and <i>Dozing</i>    | Acacia, Platonic love.                           | 17 10             |
| 5 <i>Tiny</i> and <i>Long</i>           | Apple Blossom, Fame speaks you great and good.   | 12 5              |
| 6 <i>Noted</i> and <i>New</i>           | Ash, Grandeur.                                   | 21 2              |
| 7 <i>Tall</i> and <i>Stout</i>          | Alyssum, Worth beyond beauty.                    | 15 1              |
| 8 <i>Long</i> and <i>Stout</i>          | Bachelor's Button, Hope in misery.               | 5 1               |
| 9 <i>Dozing</i> and <i>Stout</i>        | Balm, Sweets of Social Intercourse,              | 14 1              |
| 10 <i>Noted</i> and <i>Tame</i>         | Balm of Gilead, I am cured.                      | 21 13             |
| 11 <i>Long</i> and <i>Stout</i>         | Balsam, Impatience.                              | 5 1               |
| 12 <i>Chief</i> and <i>Stout</i>        | Barberry, Petulance.                             | 6 1               |
| 13 <i>Bold</i> and <i>Stout</i>         | Bay Leaf, I change but in dying.                 | 9 1               |
| 14 <i>Nice</i> and <i>Tame</i>          | Birch, Gracefulness.                             | 20 13             |
| 15 <i>Long</i> and <i>Stout</i>         | Bindweed, Humility.                              | 5 1               |
| 16 <i>Long</i> and <i>Stout</i>         | Blue Bell, Constancy.                            | 5 1               |
| 17 <i>Noted</i> and <i>Rich</i>         | Box, Stoicism.                                   | 21 4              |
| 18 <i>Decorated</i> and <i>Dozing</i>   | Broome, Neatness.                                | 17 10             |
| 19 <i>Tough</i> and <i>Stout</i>        | Burdock, Importunity.                            | 18 1              |
| 20 <i>Nice</i> and <i>Tame</i>          | Calla, Feminine modesty.                         | 20 13             |
| 21 <i>Tough</i> and <i>New</i>          | Chamomile, Energy in adversity.                  | 18 2              |
| 22 <i>Tall</i> and <i>New</i>           | Candytuft, Indifference.                         | 15 1              |
| 23 <i>Long</i> and <i>Stout</i>         | Cardinal Flower, Distinction.                    | 5 1               |
| 24 <i>Dozing</i> and <i>New</i>         | Carnation, Pride.                                | 10 2              |
| 25 <i>Dozing</i> and <i>Modern</i>      | Catchfly, A snare.                               | 10 3              |
| 26 <i>Nice</i> and <i>Tiny</i>          | Cedar Tree, Spiritual strength.                  | 20 12             |
| 27 <i>Tiny</i> and <i>Stout</i>         | Cherry Blossom, Spiritual beauty.                | 12 1              |
| 28 <i>Tiny</i> and <i>New</i>           | China Aster, Your sentiments meet with a return. | 19 2              |
| 29 <i>Tough</i> and <i>New</i>          | Chrysanthemum, A heart left to desolation.       | 18 2              |
| 30 <i>Tiny</i> and <i>Tame</i>          | Cinquefoil, Love, constant, but hopeless.        | 12 13             |
| 31 <i>Tame</i> and <i>Curious</i>       | Clematis, Mental excellence.                     | 13 7              |
| 32 <i>Tame</i> and <i>Long</i>          | Columbine, I cannot give thee up.                | 13 5              |



|    |                                            |                                          |    |    |
|----|--------------------------------------------|------------------------------------------|----|----|
| 33 | <i>Nice and Modern Corn,</i>               | Riches.                                  | 20 | 3  |
| 34 | <i>Long and Stout Cowslip,</i>             | Native Grace.                            | 5  | 1  |
| 35 | <i>Tabby and Modern Coreopsis,</i>         | Always cheerful.                         | 19 | 3  |
| 36 | <i>Long and New Coriander,</i>             | Concealed merit.                         | 5  | 2  |
| 37 | <i>Noted and Dutch Cypress,</i>            | Disappointed Hopes.                      | 21 | 16 |
| 38 | <i>Tabby and New Dahlia,</i>               | Elegance and dignity.                    | 19 | 2  |
| 39 | <i>Tabby and New Daisy,</i>                | Beauty and innocence.                    | 19 | 2  |
| 40 | <i>Tabby and Stout Dandelion,</i>          | Coquetry.                                | 19 | 1  |
| 41 | <i>Tiny and Long Dew Plant,</i>            | A serenade.                              | 12 | 5  |
| 42 | <i>Long and Modern Elder,</i>              | Compassion.                              | 5  | 3  |
| 43 | <i>Tiny and Tame Eglantine,</i>            | Poetry.                                  | 12 | 13 |
| 44 | <i>Tabby and New Everlasting,</i>          | Always remembered.                       | 19 | 2  |
| 45 | <i>Dozing and Stout Evergreen,</i>         | Poverty and worth.                       | 10 | 1  |
| 46 | <i>Noted and Dutch Fir,</i>                | Time.                                    | 21 | 16 |
| 47 | <i>Stout and Stout Flowering Reed,</i>     | Confidence in heaven.                    | 1  | 1  |
| 48 | <i>Long and Stout Forget-me-not,</i>       | True love.                               | 5  | 1  |
| 49 | <i>Daring and New Foxglove,</i>            | I am ambitious, not for myself, but you. | 14 | 2  |
| 50 | <i>Fine and Stout Fuchsia,</i>             | Humble love.                             | 8  | 1  |
| 51 | <i>Long and New Gentian,</i>               | Virgin pride.                            | 5  | 2  |
| 52 | <i>Dutch and Curious Rose Geranium,</i>    | Preference.                              | 16 | 7  |
| 53 | " " Scarlet Do.                            | Thou art changed.                        | 16 | 7  |
| 54 | " " Oak Do.                                | True friendship.                         | 16 | 7  |
| 55 | " " Lemon Do.                              | Tranquillity of mind.                    | 16 | 7  |
| 56 | " " Silver Leaved do                       | Recall.                                  | 16 | 7  |
| 57 | <i>Tall and New Gilly Flower,</i>          | Lasting beauty.                          | 15 | 2  |
| 58 | <i>Tabby and New Golden Rod,</i>           | Encouragement.                           | 19 | 2  |
| 59 | <i>Long and Stout Grape,</i>               | Charity.                                 | 5  | 1  |
| 60 | <i>Modern and New Grass,</i>               | Submission.                              | 3  | 2  |
| 61 | <i>Tiny and Long Hawthorn,</i>             | Hope.                                    | 12 | 5  |
| 62 | <i>Nice and Tame Hazel,</i>                | Reconciliation.                          | 20 | 13 |
| 63 | <i>Long and Stout Heliotrope,</i>          | Devotion.                                | 5  | 1  |
| 64 | <i>Dutch and Tame Hibiscus,</i>            | Beauty is vain.                          | 16 | 13 |
| 65 | <i>Dutch and Tame Hollyhock,</i>           | Ambition.                                | 16 | 13 |
| 66 | <i>Tall and Stout Honeysuckle,</i>         | Fidelity.                                | 5  | 1  |
| 67 | <i>Noted and Long Hop,</i>                 | Injustice.                               | 21 | 5  |
| 68 | <i>Rich and Stout Houstonia,</i>           | Quiet Happiness.                         | 4  | 1  |
| 69 | <i>Dozing and New Hydrangea,</i>           | Heartlessness.                           | 10 | 2  |
| 70 | <i>Tiny and Long Ice Plant,</i>            | Your looks freeze me.                    | 12 | 5  |
| 71 | <i>Modern and Stout Iris,</i>              | A message.                               | 3  | 1  |
| 72 | <i>Long and Stout Ivy,</i>                 | I have found one true heart.             | 5  | 1  |
| 73 | <i>New and Stout Jasmine,</i>              | Amiability.                              | 2  | 1  |
| 74 | <i>Dutch and Stout Jonquil,</i>            | Affection returned.                      | 16 | 1  |
| 75 | <i>Modern and Tame King Cup,</i>           | I wish I was rich.                       | 3  | 13 |
| 76 | <i>Decorated and Rich Laburnum,</i>        | Pensive Beauty.                          | 17 | 4  |
| 77 | <i>Nice and New Lady's Slipper,</i>        | Capricious Beauty.                       | 20 | 2  |
| 78 | <i>Tame and Modern Larkspur,</i>           | Inconstancy.                             | 13 | 3  |
| 79 | <i>Dozing and Stout Laurel,</i>            | Virtue is true beauty.                   | 10 | 1  |
| 80 | <i>Daring and Stout Lavender,</i>          | Acknowledgement.                         | 14 | 1  |
| 81 | <i>Tame and Stout Lemon,</i>               | Discretion.                              | 13 | 1  |
| 82 | <i>Tough and Stout Lettuce,</i>            | Cold-hearted.                            | 18 | 1  |
| 83 | <i>New and Stout Lilac,</i>                | First Emotion of Love.                   | 2  | 1  |
| 84 | <i>Chief and Stout Lily—white,</i>         | Purity.                                  | 6  | 1  |
| 85 | <i>Chief and Stout Lily of the Valley,</i> | The heart withering in secret.           | 6  | 1  |
| 86 | <i>Decorated and Dozing Locust,</i>        | Affection beyond the grave.              | 17 | 10 |
| 87 | <i>Decorated and Rich Lupine,</i>          | Dejection, Sorrow.                       | 17 | 4  |



|     |                             |                      |                                     |    |    |
|-----|-----------------------------|----------------------|-------------------------------------|----|----|
| 88  | <i>Dozing and Modern</i>    | London Pride,        | Frivolity.                          | 10 | 3  |
| 89  | <i>Dutch and Tame</i>       | Mallows,             | Sweet disposition.                  | 16 | 13 |
| 90  | <i>Fine and Stout</i>       | Maple,               | Reserve.                            | 8  | 1  |
| 91  | <i>Tabby and Rich</i>       | Marigold,            | Contempt.                           | 19 | 4  |
| 92  | <i>Tidy and Modern</i>      | Mignonette,          | Moral and intellectual beauty.      | 11 | 3  |
| 93  | <i>Dutch and Dozing</i>     | Mimosa,              | Sensitiveness.                      | 16 | 10 |
| 94  | <i>Known and New</i>        | Moss,                | Maternal Love.                      | 22 | 2  |
| 95  | <i>Tiny and Stout</i>       | Myrtle,              | Love in absence.                    | 12 | 1  |
| 96  | <i>Fine and Stout</i>       | Nasturtion,          | Patriotism.                         | 8  | 1  |
| 97  | <i>Long and Stout</i>       | Nightshade,          | Dark thoughts.                      | 5  | 1  |
| 98  | <i>Noted and Tame</i>       | Oak,                 | Hospitality.                        | 21 | 13 |
| 99  | <i>Long and New</i>         | Oleander,            | Beware!                             | 5  | 2  |
| 100 | <i>Tiny Orange</i>          | Flowers,             | Woman's Worth.                      | 12 | 12 |
| 101 | <i>Long and Stout</i>       | Pansy,               | Tender and pleasant thoughts.       | 5  | 1  |
| 102 | <i>Dutch and New</i>        | Passion Flower,      | Religious Fervor.                   | 16 | 2  |
| 103 | <i>Decorated &amp; Rich</i> | Pea—everlasting,     | Wilt thou go?                       | 17 | 4  |
| 104 | <i>Dedicated &amp; Rich</i> | Sweet Pea,           | Departure.                          | 17 | 4  |
| 105 | <i>Tiny and Stout</i>       | Peach Blossom,       | I am your captive.                  | 12 | 1  |
| 106 | <i>Long and Stout</i>       | Petunia,             | Thou art less proud than they deem. | 5  | 1  |
| 107 | <i>Tame and Modern</i>      | Peony,               | Ostentation.                        | 13 | 3  |
| 108 | <i>Long and Stout</i>       | Phlox,               | Our souls are united.               | 5  | 1  |
| 109 | <i>Noted and Dutch</i>      | Pine,                | Time and faith.                     | 21 | 16 |
| 110 | <i>Dozing and New</i>       | Pink—white,          | Lovely and pure affection.          | 10 | 2  |
| 111 | <i>Dozing and New</i>       | Pink—red,            | Woman's Love.                       | 10 | 2  |
| 112 | <i>Long and Stout</i>       | Polyanthus,          | Confidence.                         | 5  | 1  |
| 113 | <i>Long and Stout</i>       | Potato,              | Beneficence.                        | 5  | 1  |
| 114 | <i>Tame and Stout</i>       | Poppy,               | Forgetfulness.                      | 13 | 1  |
| 115 | <i>Long and Stout</i>       | Primrose,            | Modest worth.                       | 5  | 1  |
| 116 | <i>Fine and Stout</i>       | Primrose—evening,    | I am more faithful than thou.       | 8  | 1  |
| 117 | <i>Tiny and Tame</i>        | Rose Bud,            | Confession of love.                 | 12 | 13 |
| 118 | "                           | " Rose—Bridal,       | Happy Love.                         | 12 | 13 |
| 119 | "                           | " " —Burgundy,       | Simplicity and beauty.              | 12 | 13 |
| 120 | "                           | " " —Damask,         | Bashful love.                       | 12 | 13 |
| 121 | "                           | " " —Moss,           | Superior merit.                     | 12 | 13 |
| 122 | "                           | " " —Multiflora,     | Grace.                              | 12 | 13 |
| 123 | "                           | " " —White,          | Too young to love.                  | 12 | 13 |
| 124 | "                           | " " —RedLeaved       | Diffidence.                         | 12 | 13 |
| 125 | <i>New and Stout</i>        | Sage,                | Domestic virtues.                   | 2  | 1  |
| 126 | <i>Daring and New</i>       | Snapdragon,          | You are dazzling, but dangerous.    | 14 | 2  |
| 127 | <i>Long and Modern</i>      | Snow Ball,           | Thoughts of Heaven.                 | 5  | 3  |
| 128 | <i>Chief and Stout</i>      | Snowdrop,            | I am not a summer friend.           | 6  | 1  |
| 129 | "                           | " Star of Bethlehem, | Let us follow Jesus.                | 6  | 1  |
| 130 | <i>Tiny and Tame</i>        | Strawberry,          | Perfect excellence.                 | 12 | 13 |
| 131 | <i>Long and Modern</i>      | Sumach,              | Splendid misery.                    | 5  | 3  |
| 132 | <i>Tabby and Modern</i>     | Sun Flower,          | Smile on me still.                  | 19 | 3  |
| 133 | <i>Dozing and New</i>       | Sweet William,       | Gallantry.                          | 10 | 2  |
| 134 | <i>Tiny and Stout</i>       | Syringa—Carolina,    | Memory.                             | 12 | 1  |
| 135 | <i>Tabby and Stout</i>      | Thistle,             | Never forget.                       | 19 | 1  |
| 136 | <i>Chief and Stout</i>      | Tulip,               | Beautiful eyes.                     | 6  | 1  |
| 137 | <i>Daring and Stout</i>     | Verbena,             | Sensibility.                        | 14 | 1  |
| 138 | <i>Long and Stout</i>       | Violet,              | Faithfulness.                       | 5  | 1  |
| 139 | <i>Modern and New</i>       | Vernal Grass,        | Poor but happy.                     | 3  | 2  |
| 140 | <i>Daring and New</i>       | Wallflower,          | Fidelity in misfortune.             | 14 | 2  |
| 141 | <i>Tame and Stout</i>       | Water Lily,          | Eloquence.                          | 13 | 1  |
| 142 | <i>Noted and New</i>        | Willow,              | Forsaken.                           | 21 | 2  |



|                                      |                            |       |
|--------------------------------------|----------------------------|-------|
| 143 <i>Rich and New</i> Witch Hazel, | A spell.                   | 4 2   |
| 144 <i>Long and New</i> Woodbine,    | Fraternal love.            | 5 1   |
| 145 <i>Tabby and Tidy</i> Yarrow,    | A cure for the heart ache. | 19 11 |
| 146 <i>Tabby and New</i> Zinnia,     | I mourn your absence.      | 19 2  |

## DECIDUOUS ORNAMENTAL TREES.

|                              |                                      |                           |
|------------------------------|--------------------------------------|---------------------------|
| 1 Maple,                     | 18 Ash,                              | 33 Poplar,                |
| 2 Sycamore,                  | 19 Acacia,                           | 34 Plum,                  |
| 3 Horse-Chestnut,            | 20 Snowdrop,                         | 35 Apple,                 |
| 4 Ailantus, <i>Chinese</i> , | 21 Kentucky Coffee,                  | 36 Pear,                  |
| 5 Alder,                     | 22 Kolreuteria,                      | 37 Mountain-Ash,          |
| 6 Almond,                    | 23 Larch,                            | 38 Service-Tree, or Sorb, |
| 7 Peach,                     | 24 Tulip-Tree,                       | 39 Oak,                   |
| 8 Angelica,                  | 25 Osage-Orange,                     | 40 Purple Fringe,         |
| 9 Birch,                     | 26 Magnolia,                         | 41 Yellow-Locust, or      |
| 10 Catalpa,                  | 27 Pride of India, or Bead-<br>Tree, | Acacia,                   |
| 11 Cherry,                   | 28 Negundo,                          | 42 Japan Ginkgo,          |
| 12 Bird-Cherry,              | 29 Imperial Pawlonia,                | 43 Willow,                |
| 13 Judas-Tree,               | 30 Pistachia Nut,                    | 44 Japan Sophora,         |
| 14 Whitefringe-Tree,         | 31 Plane-Tree,                       | 45 American-Cypress,      |
| 15 Laburnum,                 | 32 Abele,                            | 46 Linden,                |
| 16 Lotus,                    |                                      | 47 Elm,                   |
| 17 Beech,                    |                                      |                           |

## DECIDUOUS ORNAMENTAL SHRUBS.

|                           |                          |                      |
|---------------------------|--------------------------|----------------------|
| 1 Sensitive or Silk Tree, | 24 Cytisus,              | 47 Mylocarium,       |
| 2 Horse Chestnut,         | 25 Scotch Broom,         | 48 Nandina,          |
| 3 Amelanche,              | 26 Mezereum,             | 49 Syringa,          |
| 4 Indigo Shrub,           | 27 Daphne,               | 50 Georgia Bark,     |
| 5 Almond,                 | 28 Deutzia,              | 51 Nepal Piptanthus, |
| 6 Andromeda,              | 29 Eleagnus,             | 52 Pomegranate,      |
| 7 Aralia,                 | 30 Strawberry Tree,      | 53 Cinquefoil,       |
| 8 Groundsel Tree,         | 31 Syrian Fontanesia,    | 54 Rhodora,          |
| 9 Barberry,               | 32 Dyer's Broom,         | 55 Currant,          |
| 10 Callicarpa,            | 33 Franklinia,           | 56 Gooseberry,       |
| 11 Calycanthus,           | 34 Helianthemum,         | 57 Acacia,           |
| 12 Caragana,              | 35 Althea Frutex,        | 58 Raspberry,        |
| 13 Japan Alspice,         | 36 Hippophæ,             | 59 Osier,            |
| 14 Globe Flower,          | 37 Hydrangea,            | 60 Shepherdia,       |
| 15 Clethra,               | 38 St. Johns Wort,       | 61 Broom,            |
| 16 Bladder Senna,         | 39 Deciduous Holly,      | 62 Spiræa,           |
| 17 Corchorus,             | 40 Virginian Itea,       | 63 Stuartia,         |
| 18 Coriaria,              | 41 Jasmine,              | 64 Indian Currant,   |
| 19 Dogwood,               | 42 Kerria, or Corchorus, | 65 Lilac,            |
| 20 Cherry,                | 43 Globe Flower,         | 66 Tamarisk,         |
| 21 Scorpion Senna,        | 44 Lagerstræmia,         | 67 Snowball,         |
| 22 Hawthorn,              | 45 Leycesteria,          | 68 Cranberry Tree,   |
| 23 Quince,                | 46 Privet,               | 69 Wayfaring Tree,   |



# PROSE, POETRY, RHYME AND FIGURES.

IN order to commit prose or poetry, it is first necessary to carefully read it, until we thoroughly understand the piece we wish to memorize. We should notice the rhetorical figures, the imagery, the harmony or irregularity of the sentences, and then proceed to memorize, or lay out the work for memorizing. Take the following paragraph as a prose specimen :

"As the vine, which has long twined its graceful foliage round the oak, and been lifted by it into sunshine, will, when the hardy plant is riven by the thunderbolt, cling around it with its caressing tendrils, binding up its shattered boughs, so is it beautifully ordered by Providence, that woman, who is a mere dependant and ornament of man in his happier hours, should be his stay and solace when smitten with sudden calamity, winding herself into the rugged recesses of his nature, tenderly supporting the drooping head, and binding up the broken heart."—IRVING.

## ANALYZED.

1. As the vine, which has long twined its graceful foliage round the oak,
2. and been lifted by it into sunshine.
3. will,
4. when the hardy plant is riven by the thunderbolt,
3. cling around it with its caressing tendrils,
6. binding up the shattered boughs,
7. so is it beautifully ordained by Providence that woman,
8. who is the mere dependant and ornament of man in his happier hours,
9. should be his stay and solace when smitten with sudden calamity,
10. winding herself into the rugged recesses of his nature,
11. tenderly supporting the drooping head,
12. and binding up the broken heart.

Twelve *PLACES* and *Symbols* are to be used in establishing a relation with the twelve parts into which the paragraph is divided. This will be done by an ingenious tact, which the mind acquires by *trying*—by locating each part in the *Place*, with its appropriate symbol. For example, I can locate the first line in the first *Place*, by placing it with the *STOUT* (oak) *GIG*, and so with every other line—then the name of the symbol will call up the line with which it stands *related*.

Should any one wish to commit a chapter in the Bible, or the "Declaration of Independence," let this plan be pursued, and not unfrequently, three-fourths of time and labor will be saved by it.

The same plan should be pursued with *poetry* and *rhyme*. Take the following beautiful lines for an example.

## THE BEAUTIES OF NATURE.

1. "O! how canst thou renounce the boundless store of bliss,
2. That nature to her votary yields; the warbling woodlands,
3. The resounding shore, the pomp of groves, the garniture of fields;
4. All that the genial ray of morning gilds,
5. And all that echoes to the breath of even;
6. All that the mountain's sheltering bosom shields,
7. And all the dread magnificence of heaven,
8. O how canst thou renounce and hope to be forgiven."



Rhyming has long been employed as a means of aiding the memory. The vividness of impression is derived from the similarity of sound, with which each line ends. Example,

“Thirty days hath September,  
April, June, and November,  
February hath twenty-eight alone,  
And all the rest have thirty one,  
Except in leap year, then in fine,  
February’s days are twenty-nine.

The following grammatical couplets should be committed by every child into whose hand this book may fall :

1. Three little words we often see,  
Are ARTICLES, *A, an, and the.*
2. A NOUN’s the name of any thing,  
As *school or garden, hoop or swing.*
3. ADJECTIVES tell the kind of noun,  
As *great, small, pretty, white or brown.*
4. Instead of nouns the PRONOUNS stand,  
John’s head, *his face, my arm, your hand.*
5. VERBS tell of something being done,  
To *read, write, count, sing, jump, or run.*
6. How things are done the ADVERBS tell,  
As *slowly, quickly, ill, or well.*
7. CONJUNCTIONS join the words together,  
As men *and* women, wind *or* weather.
8. The PREPOSITION stands before  
A noun—as *in, or through* a door.
9. The INTERJECTION shows surprise,  
As *oh! how pretty! ah! how wise!*  
The whole are called nine Parts of Speech,  
Which reading, writing, speaking, teach.

### THE MEMORY OF FIGURES.

The memorizing of isolated, or great sums of figures, should be regarded as an intellectual amusement, rather than as serving a very useful purpose. Those lecturers, who have displayed upon a black-board the “RATIO OF THE DIAMETER TO THE CIRCUMFERENCE OF THE CIRCLE,” as a demonstration of the adaptation of mnemonic rules to *mathematics*, have only aimed to arouse our marvellousness, raise hopes for disappointment, and take the people’s money on *false pretences*. As soon as any one learns the *figure alphabet*, or numerical key, words can be substituted for figures, and made into sentences, and in a way that will not only enable one to replace a long list of figures, when they



have been removed from the black-board, but tell the *numerical order* of each figure, calling it by name. Any piece of prose or poetry, which may have been committed, can be converted into figures the hundredth time, and thereby make an apparent show of a great memory of figures, and “adaptation to mathematics,” as well as in the *ratio of the diameter*. How far mnemonic rules can be made to aid in retaining propositions in some of the higher branches of mathematics, we will not pretend to determine, and while we would not have unprincipled lecturers bring mnemonic rules into disrepute, we would not object to it as a mere exercise.

The following Ratio of the Diameter, should be converted into letters and words, and placed in as many *series* as there are *tens* of figures; having only nine figures in the 1st series, each succeeding series will begin with the 10, 20, 30, and so on, so that if the series can be remembered, each figure in the series can be determined by decomposing the sentence, and translating it into figures. Any one who will take the trouble to make *indicating sentences* to fit the 15 series, can not only remember all the following figures, but answer correctly when the figure, standing against any of the following numbers, is called for.

As 3 is to 9, or as 7 is to 21, so is the *diameter to the circumference of the circle*—but there is an allowance to be made, as the mechanics say, because of the impossibility of making a *perfect* circle, so that they oftener say 3 times 7 are 22 than otherwise. The following figures are the fractional parts of an inch, foot, or yard, as the case may be:

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 3   | 1   | 4   | 1   | 5   | 9   | 2   | 6   | 5   | 3   | 5   | 8   | 9   | 7   | 9   | 3   | 2   | 3   | 8   |
| 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  | 14  | 15  | 16  | 17  | 18  | 19  |
| 4   | 6   | 2   | 6   | 4   | 3   | 3   | 8   | 3   | 2   | 7   | 9   | 5   | 0   | 2   | 8   | 8   | 4   | 1   |
| 20  | 21  | 22  | 23  | 24  | 25  | 26  | 27  | 28  | 29  | 30  | 31  | 32  | 33  | 34  | 35  | 36  | 37  | 38  |
| 9   | 7   | 1   | 6   | 9   | 3   | 9   | 9   | 3   | 7   | 5   | 1   | 0   | 5   | 8   | 2   | 0   | 9   | 7   |
| 39  | 40  | 41  | 42  | 43  | 44  | 45  | 46  | 47  | 48  | 49  | 50  | 51  | 52  | 53  | 54  | 55  | 56  | 57  |
| 4   | 9   | 4   | 4   | 5   | 9   | 2   | 3   | 0   | 7   | 8   | 1   | 6   | 4   | 0   | 6   | 2   | 8   | 6   |
| 58  | 59  | 60  | 61  | 62  | 63  | 64  | 65  | 66  | 67  | 68  | 69  | 70  | 71  | 72  | 73  | 74  | 75  | 76  |
| 2   | 0   | 8   | 9   | 9   | 8   | 6   | 2   | 8   | 0   | 3   | 4   | 8   | 2   | 5   | 3   | 4   | 2   | 1   |
| 77  | 78  | 79  | 80  | 81  | 82  | 83  | 84  | 85  | 86  | 87  | 88  | 89  | 90  | 91  | 92  | 93  | 94  | 95  |
| 1   | 7   | 0   | 6   | 7   | 9   | 8   | 2   | 1   | 4   | 8   | 0   | 8   | 6   | 5   | 1   | 3   | 2   | 8   |
| 96  | 97  | 98  | 99  | 100 | 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 109 | 110 | 111 | 112 | 113 | 114 |
| 2   | 3   | 0   | 6   | 6   | 4   | 7   | 0   | 9   | 3   | 8   | 4   | 4   | 6   | 0   | 9   | 5   | 5   | 0   |
| 115 | 116 | 117 | 118 | 119 | 120 | 121 | 122 | 123 | 124 | 125 | 126 | 127 | 128 | 129 | 130 | 131 | 132 | 133 |
| 5   | 8   | 2   | 2   | 3   | 1   | 7   | 2   | 5   | 3   | 5   | 9   | 4   | 0   | 8   | 1   | 2   | 8   | 4   |
| 134 | 135 | 136 | 137 | 138 | 139 | 140 | 141 | 142 | 143 | 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 |
| 8   | 0   | 2   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 153 | 154 | 155 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

EXAMPLES.—My dear tall Benny is in jail!—3.14159265.

My love, I beg, bemoan the move—3589793238.

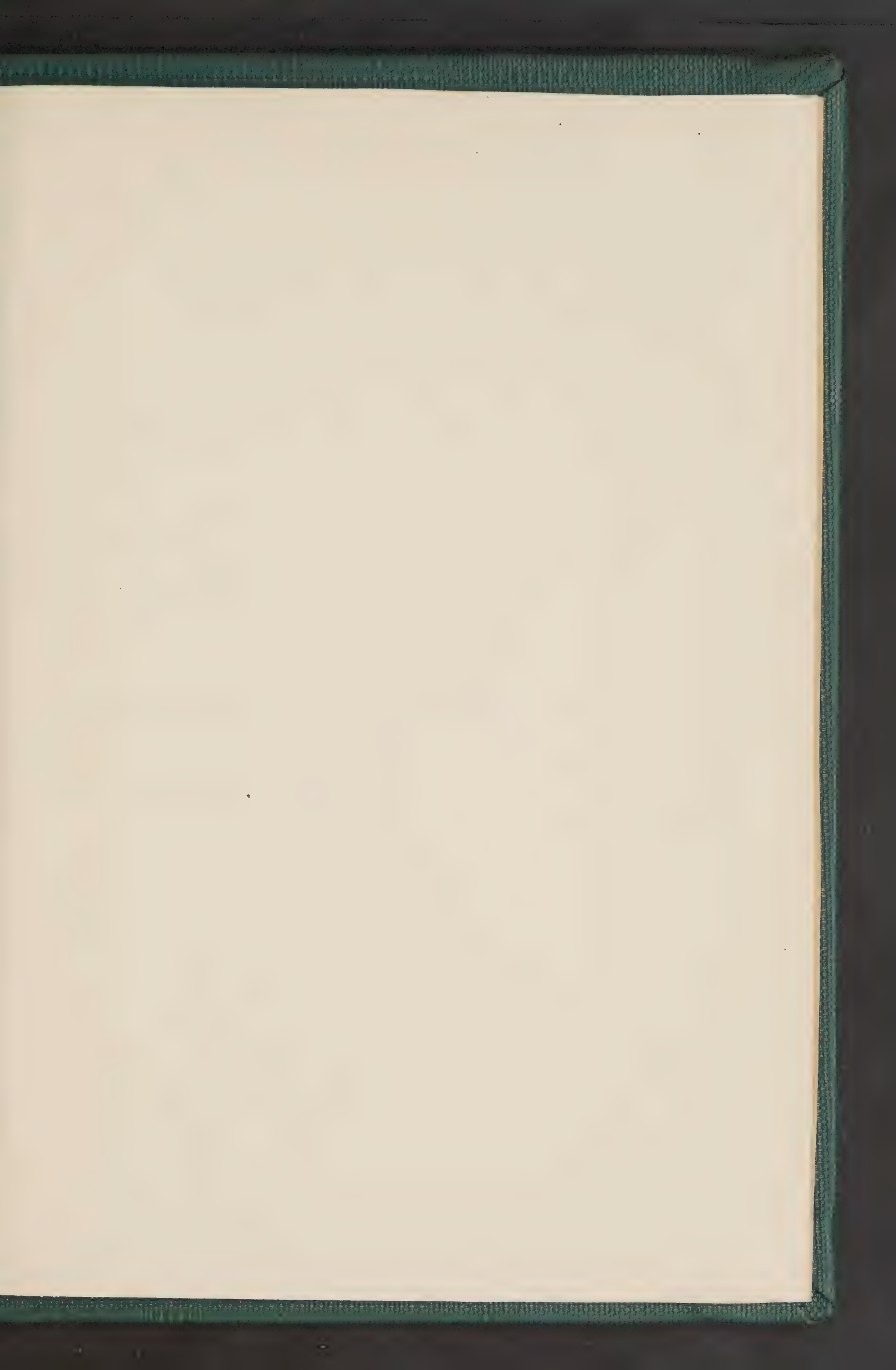


## INDEX TO SUBJECTS.

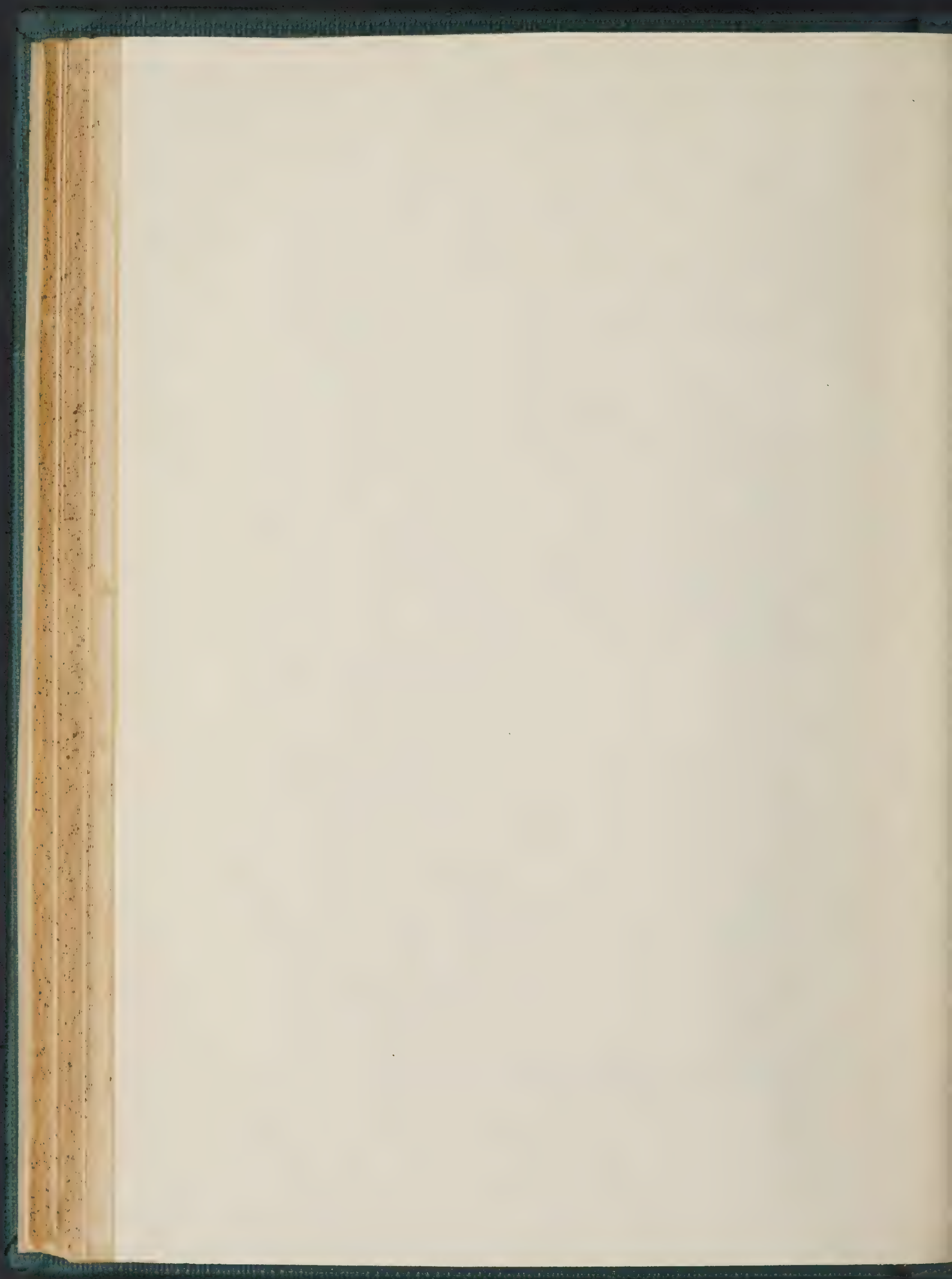
|                                                                               |    |
|-------------------------------------------------------------------------------|----|
| Introduction,                                                                 | 3  |
| <b>PART FIRST,</b>                                                            |    |
| Numerical key,                                                                | 11 |
| 1000 Historical Events,                                                       | 14 |
| Sovereigns of England,                                                        | 39 |
| Geography—Principles,                                                         | 43 |
| Method of determining Geographical Localities,                                | 45 |
| General Geography,                                                            | 47 |
| Latitudes and longitudes of towns and cities,                                 | 51 |
| Length of rivers,                                                             | 44 |
| Height of Mountains and other elevations,                                     | 57 |
| Extent of Countries in square miles,                                          | 58 |
| Statistics of the United States,                                              | 60 |
| Astronomy,                                                                    | 61 |
| Constellations,                                                               | 62 |
| Distances of the Planets from the sun,                                        | 63 |
| Discoveries and Improvements in the Arts and Sciences,                        | 64 |
| Biography. Deaths and Ages of the Signers of the Declaration of Independence, | 66 |
| Deaths and Ages of deceased Presidents of the United States,                  | 67 |
| “ “ “ men renowned in American history,—J. Q. Adams,                          | 68 |
| “ “ “ celebrated men living in different ages of the world,                   | 69 |
| Remarkable Events in the Life of Napoleon,                                    | 70 |
| Remarkable Instances of Longevity,                                            | 71 |
| Curious Numbers,                                                              | 71 |
| <b>PART SECOND,</b>                                                           | 73 |
| 100 Promptors and Symbols,                                                    | 75 |
| Method of committing them,                                                    | 76 |
| Diagrams of the Two Rooms,                                                    | 78 |
| Chronological Table,                                                          | 81 |
| 100 Towns and Cities in the United States,                                    | 83 |
| Capitals of America and Europe,                                               | 83 |
| Universities and Colleges in the United States,                               | 84 |
| Names of the Arts and Sciences,                                               | 86 |
| Technicalities in Philosophy,                                                 | 86 |
| “ Chemistry—Astronomy—Mathematics—Rhetoric—Grammar,                           | 87 |
| “ Literature—Belles-lettres—Physic—Surgery—Law—Politics,                      | 88 |
| Botany,                                                                       | 89 |
| Language of flowers, and their Sentiments,                                    | 39 |
| Ornamental Trees and Shrubs,                                                  | 96 |
| Prose, Poetry, Rhyme and Figures,                                             | 97 |
| The Memory of Figures,                                                        | 98 |

ERRATA.—The “Nineteenth Grand Division of Time,” on the 36th page, should have been placed on the 33d page, next after No. 90—“Edict of Nantes.”





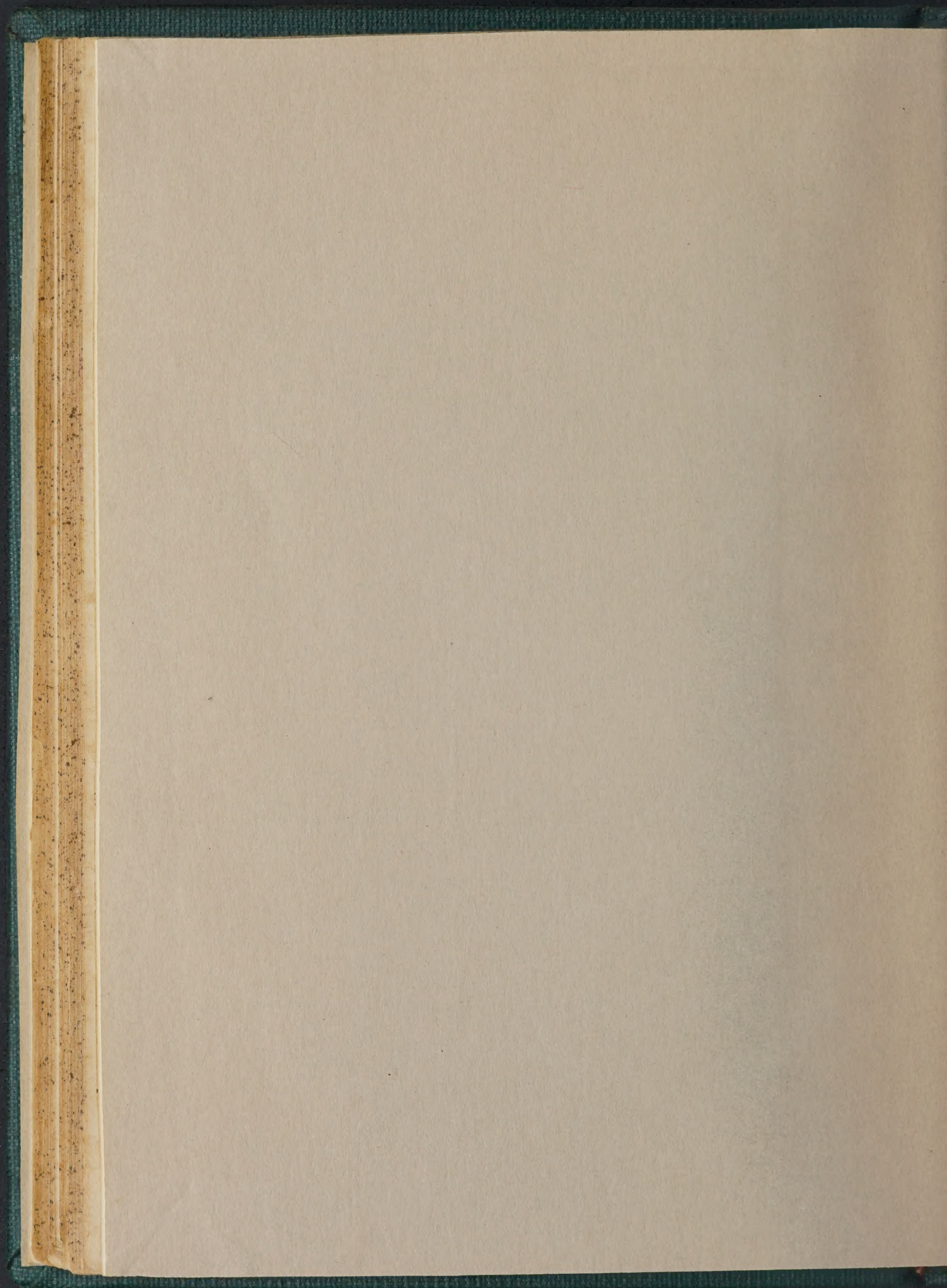














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